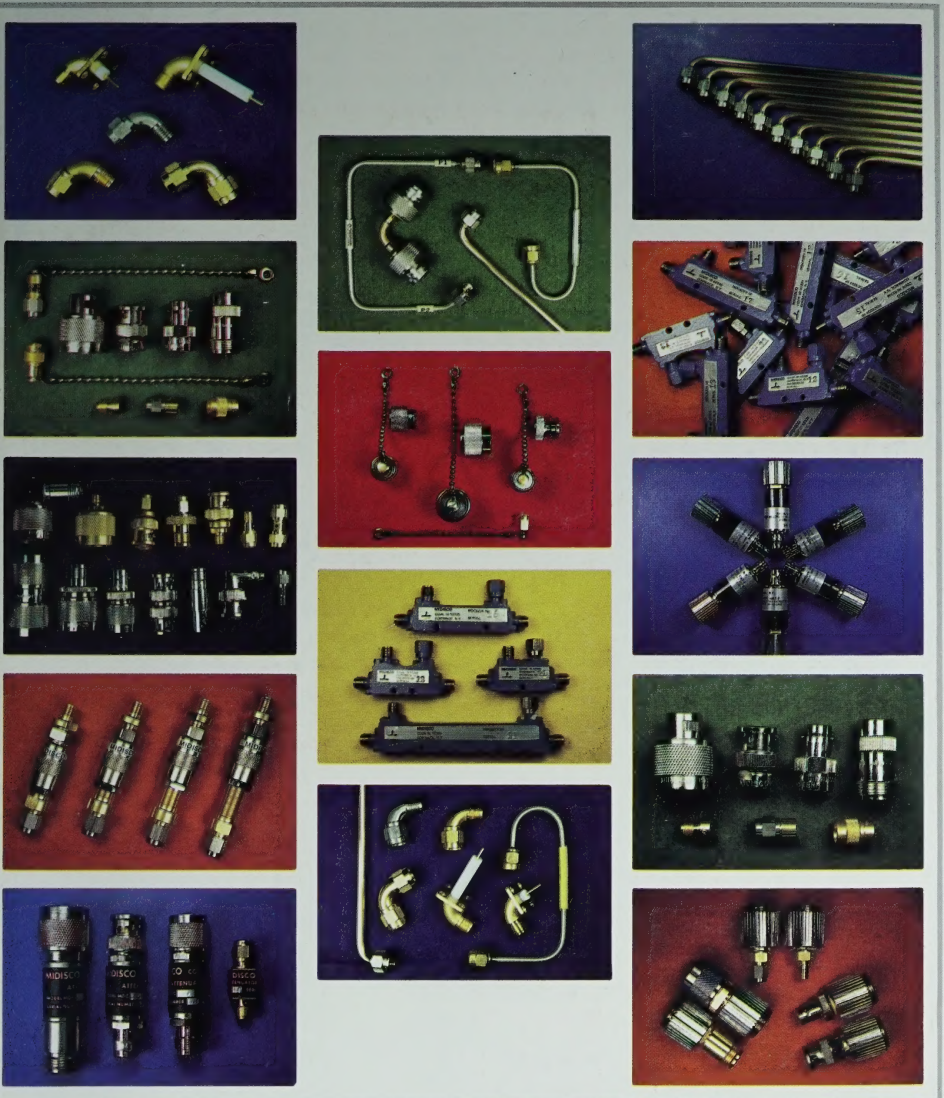
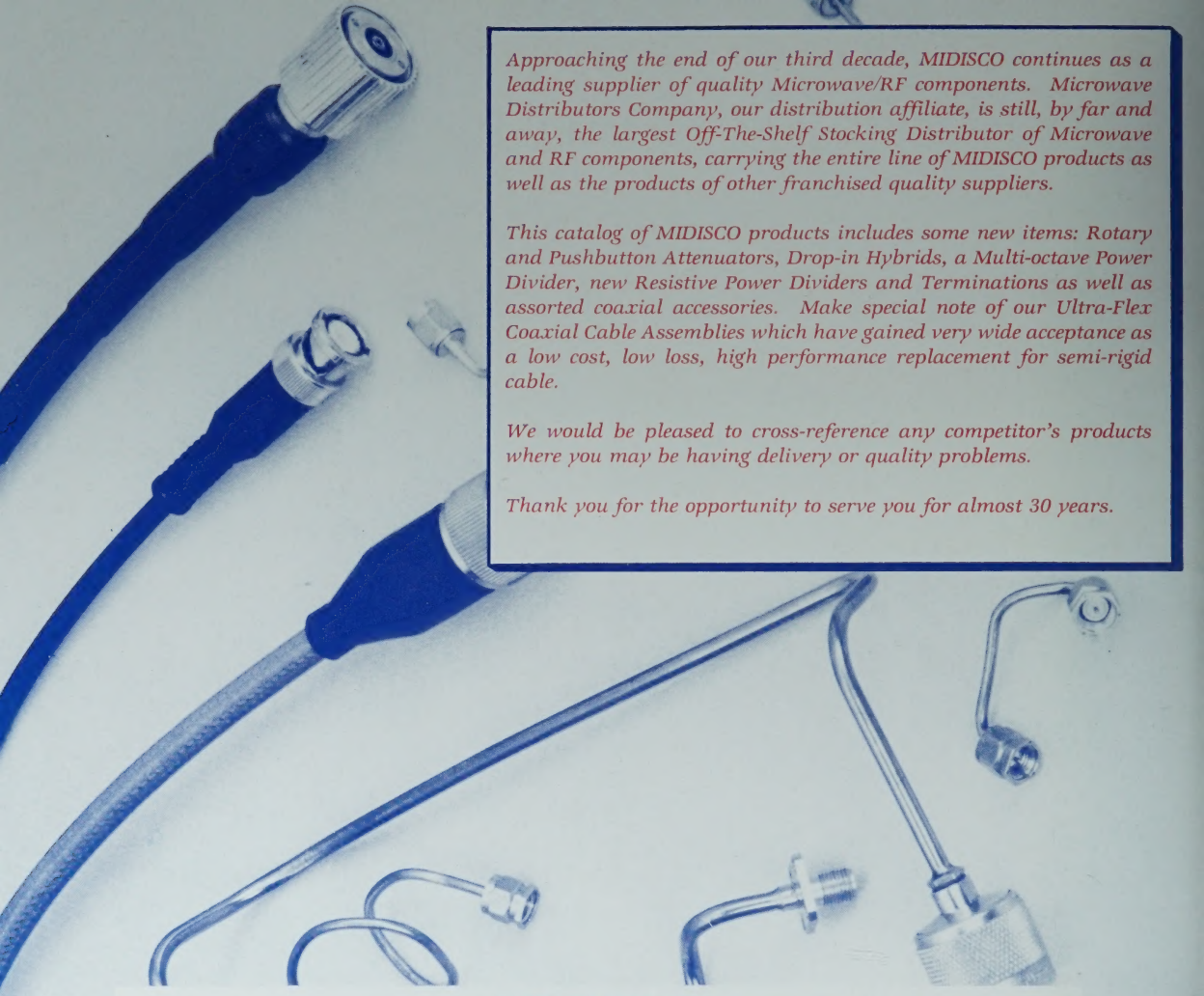
MIDISCO



1991/1992



Approaching the end of our third decade, MIDISCO continues as a leading supplier of quality Microwave/RF components. Microwave Distributors Company, our distribution affiliate, is still, by far and away, the largest Off-The-Shelf Stocking Distributor of Microwave and RF components, carrying the entire line of MIDISCO products as well as the products of other franchised quality suppliers.

This catalog of MIDISCO products includes some new items: Rotary and Pushbutton Attenuators, Drop-in Hybrids, a Multi-octave Power Divider, new Resistive Power Dividers and Terminations as well as assorted coaxial accessories. Make special note of our Ultra-Flex Coaxial Cable Assemblies which have gained very wide acceptance as a low cost, low loss, high performance replacement for semi-rigid cable.

We would be pleased to cross-reference any competitor's products where you may be having delivery or quality problems.

Thank you for the opportunity to serve you for almost 30 years.

TABLE OF CONTENTS

HELP US HELP YOU!

Please complete & return prepaid postcard for continued updates!

PHASE ADJUSTABLE SMA ADAPTERS & CONNECTORS

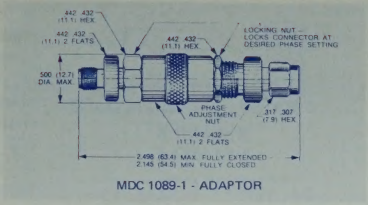
PHASE ADJUSTABLE SMA CONNECTORS AND ADAPTERS

SIMPLE MECHANICAL PHASE ADJUSTMENT

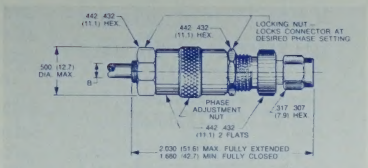
These SMA connectors for semi-rigid coaxial cables offer a precise yet extraordinarily simple means of phase adjustment for microwave instrumentation. MIDISCO phase adjustable connectors incorporate a threaded interconnection of variable length. Turning a phase adjustment nut creates small-increment changes in cable length and hence phase, up to a maximum of 180° at 18 GHz. (At 9 GHz, for example, one revolution of the nut results in a mechanical length change of .021" and a phase change of 6°.)

MIDISCO phase adjustable connectors are available in two standard sizes, number MDC 1089-2 for .141" dia. cable and number MDC 1089-3 for .085" dia. cable. An adaptor version, number MDC 1089-1, is also available for in-line applications.

For phased array radar, test equipment, ILS landing systems & other instrumention using phase matching techniques, the new connectors substitute the ease of mechanical screw adjustments for the delays of laborious cable-trimming. Phase matching may be performed at final production stages, allowing less stringent specifications for equipment components. Once established, the proper phase setting for each cable is maintained by a connector locking nut. To compensate for system aging, the locking nut may be released and new phase adjustments made at any time.



MDC 1089-1 - ADAPTOR



MDC1089-2 MDC1089-3

ELECTRICAL PERFORMANCE

Unlike other phase-matching techniques with limited frequency ranges which may hamper performance or require use of more than one model, each broadband MIDISCO phase adjustable connector covers the entire range from DC to 18 GHz. Low VSWR is typical (see chart below).

FEATURES

- Phase Adjustment = 10°X F (GHz)
- Available for .141 Dia. and .085 Dia. Semi Rigid Cable
- Available as MALE/FEMALE Adapter
- Phase Adjustment at Final Production Stage
- DC to 18 GHz with low VSWR
- Meets Stringent Environmental Specifications
- Delivery From Stock

MODEL	MAX. LENGTH IN.	DIA., IN. B	DESCRIPTION
MDC1089-1	2½	N/A	In-Line Adapter
MDC1089-2	2½	0.144	.141" Cable Conn.
MDC1089-3	2½	0.088	.085" Cable Conn.

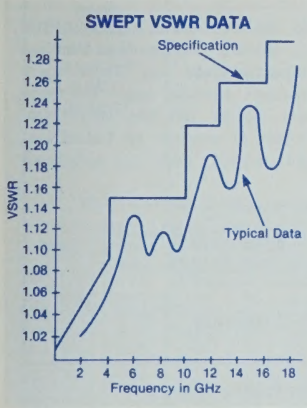
NOTE: Phase adjustable SMA Connectors are available for other semi-rigid cables. Please consult factory.

Phase adjustment range in degrees is ten times the frequency in GHz (e.g. 100° at 10 GHz, 180° at 18 GHz).

ENVIRONMENTAL PERFORMANCE

MIDISCO phase adjustable SMA connectors are operational at temperatures from −65°C to +125°C. They also meet the following sections of MIL-Std-202 for environmental conditions:

Vibration:
Method 204 — Test Condition D
Mechanical Shock:
Method 213 — Test Condition I



ELECTRICAL

Impedance	50 ohms
Frequency Range	DC-18 GHz
Insertion Loss	dB = 1 x $\sqrt{F}$ for adapter version .08 x $\sqrt{F}$ for connector version (F is frequency in GHz)
VSWR	(see chart)
Phase Adjustment (Degrees)	10° x F
Phase Change per Revolution of Adjustment Nut	0.636° x F
Voltage Rating	500 Volts RMS

MECHANICAL

Mating	Mating face dimensions compatible with the mating requirements of MIL-C-39012/55 (type SMA)
Connector Durability	(SMA interface) 500 cycles of mating and unmating without deterioration

ENVIRONMENTAL

Shock	MIL-Std-202, Method 213, Test Condition I
Vibration	MIL-Std-202, Method 204, Test Condition D
Thermal Limits	-65°C to +125°C

MATERIAL

Center Conductor	Beryllium Copper, Gold Plated
Connector Body	Brass or Beryllium Copper, Gold Plated
Adjusting Nut and Locking Nut	Brass with bright nickel plate
Connector Coupling Nut	Stainless Steel, Passivated
Insulation	TFE

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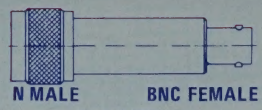
COAXIAL DETECTORS

100 KHz TO 26.5 GHz - ZERO BIAS SCHOTTKY

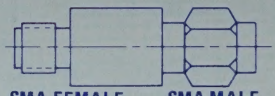
The MIDISCO Zero Bias Schottky broadband coaxial detectors, with their superior broadband flatness, low VSWR, ruggedness and burnout protection, relative to point-contact models, are excellent for use in broadband EW system applications and microwave instrumentation. Since they do not require DC bias and can be used with common oscilloscopes, their ease of use and broadband performance make them very useful in laboratory measurements.

The various series include choices of 7 mm (APC-7), N, SMA or BNC input connectors and BNC, SMA or SMC output connectors. Matched pairs are available (suffix -M to part number) with a frequency response less than ±0.3 dB to 18.5 GHz and ±0.5 dB from 18.5 to 26.5 GHz.



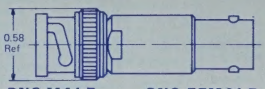
N MALE BNC FEMALE

MDC1101-N
MDC1087-N



SMA FEMALE SMA MALE

MDC1112-S
MDC1118-S
MDC1126-S



BNC MALE BNC FEMALE

MDC1100A
MDC1100B

FEATURES

- **Broadband (0.01 to 26.5 GHz)**
- **Excellent flatness (±0.5 dB to 26.5 GHz)**
- **Low VSWR due to matched input**
- **Very high sensitivity**
- **No bias required**
- **Metallurgically bonded diodes**
- **High burnout protection**
- **Choice of 7 mm (APC-7), N, BNC or SMA input connectors**
- **Positive or Negative polarity available**
- **Matched pairs available**
- **Delivery from stock**

SPECIFICATIONS*

Frequency Range	Model Number	Connectors		Mech. Dimensions		VSWR	Frequency Response		Low Level Sensitivity	Input Power
		Input	Output	Length	Diameter		Octave	Broadband		
100 KHz to 2 GHz	MDC1100A	BNC Male	BNC Female	2.50 in. (64 mm)	0.51 in (13 mm)	1.3:1 max.	±0.1dB (per 100 KHz)	±0.3dB	0.50mV/uW	Maximum Operating 200mW; Short Duration (Less than 1 minute) 1 Watt (typical)
100 KHz to 4 GHz	MDC1100B									
0.01 to 12.4 GHz	MDC1101-N	Type N Male	BNC Female	2.46 in (62.5 mm)	0.75 in (19 mm)	1.20:1 max. (to 4.5 GHz) 1.30:1 max. (to 7 GHz)] 1.40:1 max. (to 12.4 GHz)	±0.2dB	±0.5dB (to 12.4 GHz)	0.40mV/uW	
	MDC1101-S	SMA Male	BNC Female	2.50 in (64 mm)	0.56 in (14 mm)					
	MDC1112-S	SMA Male	SMA Female	1.15 in (29 mm)	0.34 in (8.6 mm)	1.25:1 max.			0.50mV/uW	
	MDC1112-C	SMA Male	SMC Male	1.50 in (38 mm)	0.34 in (8.6 mm)					
0.01 to 18 GHz	MDC1087-7	APC-7	BNC Female	2.59 in (65.8 mm)	0.75 in (19 mm)	1.2:1 max. (to 4 GHz) 1.4:1 max. (to 18 GHz)	±0.2dB (to 8 GHz)	±0.3dB (to 8 GHz) ±0.5dB (to 18 GHz)	>0.42mV/uW	
	MDC1087-N	Type N Male	BNC Female	2.46 in (62.5 mm)	0.75 in (19 mm)	1.2:1 max. (to 4 GHz) 1.4:1 max. (to 18 GHz)				
	MDC1087-S	SMA Male	BNC Female	2.50 in (64 mm)	0.56 in (14 mm)	1.2:1 max. (to 4 GHz) 1.5:1 max. (to 18 GHz)				
0.01 to 18 GHz	MDC1118-S	SMA Male	SMA Female	1.15 in (29 mm)	0.34 in (8.6 mm)	1.25:1 max.	±0.2dB	±0.3dB (to 8 GHz) ±0.5dB (to 18 GHz)	0.50mV/uW	
	MDC1118-C	SMA Male	SMC Male	1.50 in (38 mm)	0.34 in (8.6 mm)					
0.01 to 26.5 GHz	MDC1126-S	SMA Male	SMA Female	1.15 in (29 mm)	0.34 in (8.6 mm)	1.3:1 max. (to 18.5 GHz) 2:1 max. (to 26.5 GHz)	±0.5dB to 18 GHz ±1dB to 26.5 GHz		0.50mV/uW	
	MDC1126-C	SMA Male	SMC Male	1.50 in (38 mm)	0.34 in (8.6 mm)					

*Specifications given for T_A = +25 °C

Matched pairs are available for frequency response within ±0.3dB to 18.5 GHz and ±0.5dB from 18.5 GHz to 26.5 GHz - Add Suffix M.

Output Polarity: Negative Polarity Standard.
For Positive Polarity models, add "R" suffix to part number.
Example: MDC1087-SR

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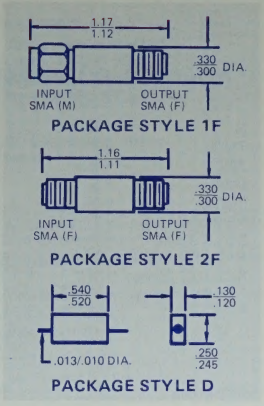
PIN DIODE LIMITERS

0.5 TO 18 GHz

MIDISCO limiters are passive (series P) or detector activated (series Y), broadband integrated module devices that are designed for power leveling and receiver protection. In ECM, radar and communications systems, these limiters can protect transistor, tunnel diode or FET amplifiers, detectors and mixers. The limiting threshold is the incident power at which the low level insertion loss increases by one dB and the limiter begins its protective role. In series Y the detector provides a bias to the PIN diode which allows the diode to attenuate at a lower level providing harder limiting than it could achieve on its own.

The 50 ohm hermetically sealed modules provide high reliability in severe environments. Both types are available in module form (Pkg D) or in SMA connector packages (1F or 2F).



FEATURES

P SERIES

- Low insertion loss
- 1 watt CW and 100 Watt peak (1 usec) power handling capability
- Fast response and short recovery time (10 to 20 nsec typical)
- Built-in dc return
- Hermetically sealed module
- Moderate cost

SCHEMATIC:

SPECIFICATIONS:
Operating temperature.....–55°C to + 125°C
Storage temperature.....–55°C to + 150°C
Shock.....50G, 11 msec
Vibration.....20G, 100 to 2000 Hz

Insertion loss and VSWR tested @ -10 dBm.
Minimum power handling capability: 1 watt CW or 100 watts peak (1 usec, 0.1% duty) derated to 20% @ + 125°C.
Standard outline in "1F" style. Add suffix D or 2F to the model number for optional outlines.
Package Style: (inches)

PASSIVE PIN DIODE TYPE, P SERIES @ 25°C

Model	Frequency Range (GHz)	Maximum Insertion Loss (dB)	VSWR (max)	Max. Leak. @1W CW Input (dBm)
MDC1527P-1	0.5-1	0.5	1.4:1	+20
MDC1527P-2	0.5-2	0.7	1.4:1	+20
MDC1527P-3	1-2	0.5	1.4:1	+19
MDC1527P-4	2-4	0.8	1.4:1	+19
MDC1527P-5	2-8	1.5	1.5:1	+19
MDC1527P-6	2-18	2.2	2.2:1	+20
MDC1527P-7	4-8	1.4	1.5:1	+19
MDC1527P-8	7-12	1.8	1.7:1	+19
MDC1527P-9	8-16	2.0	1.8:1	+19
MDC1527P-10	11-18	2.2	2.0:1	+19

Limiting threshold +9dBm (typ.)

DETECTOR ACTIVATED TYPE, Y SERIES @ 25°C

Model	Frequency Range (GHz)	Maximum Insertion Loss (dB)	VSWR (max)	Max. Leak. @1W CW Input (dBm)
MDC1527Y-1	0.5-1	0.7	1.4:1	+14
MDC1527Y-2	0.5-2	0.7	1.4:1	+14
MDC1527Y-3	1-2	0.7	1.4:1	+14
MDC1527Y-4	2-4	0.8	1.4:1	+14
MDC1527Y-5	2-8	1.4	1.6:1	+14
MDC1527Y-6	2-18	2.5	2.5:1	+14
MDC1527Y-7	4-8	1.4	1.5:1	+13
MDC1527Y-8	7-12	1.8	1.6:1	+13
MDC1527Y-9	8-16	2.2	2.0:1	+13
MDC1527Y-10	11-18	2.5	2.2:1	+13

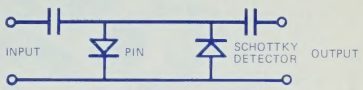
Limiting threshold +6dBm (typ.)

FEATURES

Y SERIES

- Low limiting threshold (+6 dBm typ.)
- Low leakage level (+13 dBm typ.)
- 1 Watt CW and 200 Watts peak (1 usec) power handling capability
- Built-in DC block both ends
- Hermetically sealed module
- Typical recovery time is less than 10 usec

SCHEMATIC:

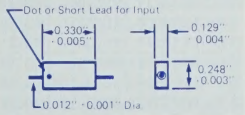


TUNNEL (BACK) DIODE DETECTORS

FOR STRIPLINE/MICROSTRIP ASSEMBLIES – 0.01 TO 18 GHz

MIDISCO drop-in tunnel diode detectors are narrow or broadband matched without resistive loading. They provide excellent sensitivity and flat response with optimum input VSWR and tangential sensitivity. The performance of these modules, in wideband video systems requiring fast pulse rise times, is impressive and the square law performance is essentially unaffected by changes in microwave power levels at small signals of less than -23dBm. Application notes are available.

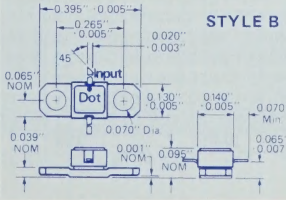
STYLE A



SPECIFICATIONS (@ +25°C, up to -20 dBm power input)

Model	Frequency Range (GHz)	Minimum Sensitivity K(mV/mW)	Typical TSS (dBm)	Maximum Flatness (±dB)	Typical VSWR	Nominal Output Cap (RF)	Nominal Output Res (ohm)
MDC1528-1	0.1-2	1000	-51	±0.3	1.5:1	150	250
MDC1528-2	0.1-4	900	-50	±0.5	2:1	150	250
MDC1528-3	0.1-0.5	1000	-51	±0.75	2:1	150	150
MDC1528-4	0.1-1	800	-50	±0.75	2:1	150	130
MDC1528-5	0.5-2	800	-50	±0.7	3:1	50	130
MDC1528-6	0.2-6	800	-50	±0.7	4:1	10	130
MDC1528-7	2-8	750	-50	±1.0	4:1	10	130
MDC1528-8	2-12	700	-50	±1.2	4:1	10	130
MDC1528-9	6-18	600	-49	±1.0	3:1	10	130
MDC1528-10	2-18	600	-49	±1.5	4:1	10	130

STYLE B



FEATURES

- Drop-in miniature construction
- Very low output resistance
- Broadband, flat frequency response
- Excellent temperature stability
- Very low I/f noise

MAXIMUM RATINGS

Input power	+17 dBm
Operating temp	–65°C to +115°C
Storage temp	–65°C to +125°C
Soldering temp	230°C, 5 secs

Negative output polarity standard. Add R to end of model number for positive output polarity. TSS based on 2 MHz video band width and 2 dB amplifier NF Add "A" or "B" to the end of the model number for package style desired.

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COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C, CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

Every conceivable combination of inter and intra series adapter is available from MIDISCO. Precision adapters, shown on the following pages, in many cases are identified with an "X". For lower frequency applications (to about 12 GHz), the cost effective standard series should be suitable. A convenient part number code table, shown here, very often enables the user to quickly specify the adapter combination desired without the need to research a part number. Custom adapters and bulkhead/flange type coaxial cable-adapter assemblies can be obtained quickly, while the adapters shown on these pages are usually in stock.

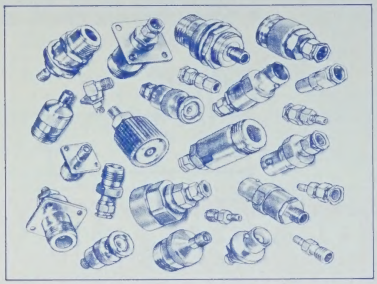
ADAPTER CODE TABLE

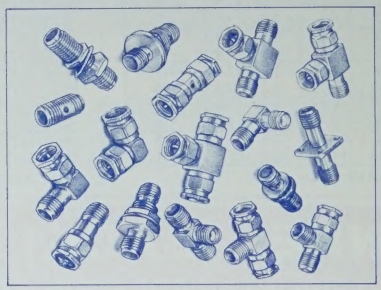
N	= N
TNC	= T
BNC	= B
SMA	= S
MALE	= M
FEMALE	= F
BULKHEAD	= Prefix with B
RIGHT ANGLE	= Prefix with R
RADIUS (swept)	= RR
PANEL (flange)	= Prefix with P
PRECISION	= Prefix with X; usage through 18GHz

Examples:	Part No.
N (male) to SMA (female)	NM-SF
TNC (female) to SMA (male)	TF-SM
BNC (male) to BNC (female)	BM-BF
Precision panel mount N (female) to SMA (female)	XPNF-SF

FEATURES

- Rugged construction
- Easy part number system
- Available in straight and right angle configuration (prefix R).
- Panel and bulkhead types available (prefix P or B)
- Small size
- Standard and Precision series for cost considerations
- Specials available in custom lengths
- Delivery from stock





This table shows some common STANDARD and a few PRECISION adapter combinations. See the individual specifications on the pages following or call us for assistance.

Series	Type	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model
SMA	MALE	MDC3314	MDC3100	SM-SM	SM-SF	MDC3037	MDC3038	MDC3039	MDC3040	BM-SM	BF-SM	NM-SM	NF-SM	TM-SM	TF-SM
	FEMALE	MDC3312	MDC3313	SM-SF	SF-SF	MDC3033	MDC3034	MDC3035	MDC3036	BM-SF	BF-SF	NM-SF	NF-SF	TM-SF	TF-SF
SMB	MALE	MDC7916-3	MDC7915-3	MDC3037	MDC3033	MDC6234	MDC6004	MDC3041	MDC3042	MDC4021-3	MDC4030-3	MDC4024-3	MDC4032-3	MDC4027-3	MDC4031-3
	FEMALE	MDC7916-4	MDC7915-4	MDC3038	MDC3034	MDC6004	MDC6237	MDC3045	MDC3044	MDC4021-4	MDC4030-4	MDC4024-4	MDC4032-4	MDC4027-4	MDC4031-4
SMC	MALE	MDC7916-1	MDC7915-1	MDC3039	MDC3035	MDC3041	MDC3045	MDC8134	MDC8001	MDC4021-1	MDC4030-1	MDC4024-1	MDC4032-1	MDC4027-1	MDC4031-1
	FEMALE	MDC7916-2	MDC7915-2	MDC3040	MDC3036	MDC3042	MDC3044	MDC8001	MDC8137	MDC4021-2	MDC4030-2	MDC4024-2	MDC4032-2	MDC4027-2	MDC4031-2
BNC	MALE	MDC7909	MDC7903	BM-SM	BM-SF	MDC4021-3	MDC4021-4	MDC4021-1	MDC4021-2	BM-BM	BM-BF	NM-BM	NF-BM	BM-TM	BM-TF
	FEMALE	MDC7910	MDC7904	BF-SM	BF-SF	MDC4030-3	MDC4030-4	MDC4030-1	MDC4030-2	BM-BF	BF-BF	NM-BF	NF-BF	BF-TM	BF-TF
N	MALE	MDC7911	MDC7905	NM-SM	NM-SF	MDC4024-3	MDC0424-4	MDC4024-1	MDC4024-2	NM-BM	NM-BF	NM-NM	NM-NF	NM-TM	NM-TF
	FEMALE	MDC7912	MDC7906	NF-SM	NF-SF	MDC4032-3	MDC4032-4	MDC4032-1	MDC4032-2	NF-BM	NF-BF	NM-NF	NF-NF	NF-TM	NF-TF
TNC	MALE	MDC7913	MDC7907	TM-SM	TM-SF	MDC4027-3	MDC4027-4	MDC4027-1	MDC4027-2	BM-TM	BF-TM	NM-TM	NF-TM	TM-TM	TM-TF
	FEMALE	MDC7914	MDC7908	TF-SM	TF-SF	MDC4031-3	MDC4031-4	MDC4031-1	MDC4031-2	BM-TF	BF-TF	NM-TF	NF-TF	TM-TF	TF-TF
SSMA	MALE	MDC1143	MDC1144	MDC3314	MDC3312	MDC7916-3	MDC7916-4	MDC7916-1	MDC7916-2	MDC7909	MDC7910	MDC7911	MDC7912	MDC7913	MDC7914
	FEMALE	MDC1144	MDC1142	MDC3100	MDC3313	MDC7915-3	MDC7915-4	MDC7915-1	MDC7915-2	MDC7903	MDC7904	MDC7905	MDC7906	MDC7907	MDC7908
		MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
		SSMA		SMA		SMB		SMC		BNC		N		TNC	

MIDISCO
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COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C, CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

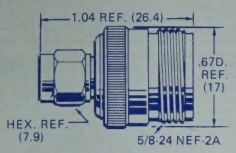
Standard adapters are an inexpensive alternative to the MIDISCO Precision series, when operating at frequencies less than 12 GHz. Construction is rugged and, wherever applicable, is in accordance with MIL-C-39012 and MIL-A-55339. Construction is stainless steel, beryllium copper or brass as the connector series dictates with corresponding plating of gold or nickel as the specification applies.

Additional types, including bulkhead, panel (flange), right angle and other series combinations are also available, usually from stock.

FEATURES

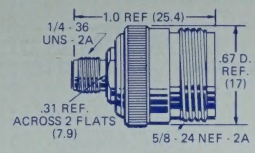
- Manufactured per MIL-A-55339
- RF leakage: 90 dB (min.)
- Dielectric withstanding voltage: 1000 Vrms, 60 Hz (sea level)
- Temperature range: −65°C to +165°C
- Frequency: DC to 12.4 GHz
- Impedance: 50 ohms
- Delivery from stock

SMA MALE TO TYPE "N" FEMALE



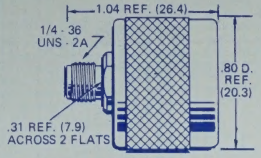
NF – SM

SMA FEMALE TO TYPE "N" FEMALE



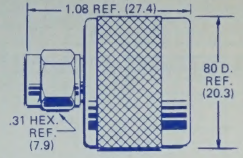
NF – SF

SMA FEMALE TO TYPE "N" MALE



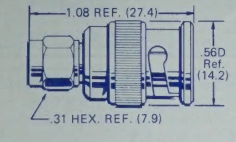
NM – SF

SMA MALE TO TYPE "N" MALE



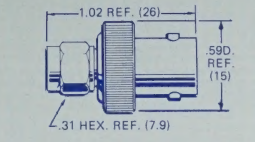
NM – SM

SMA MALE TO BNC MALE



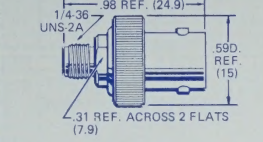
BM – SM

SMA MALE TO BNC FEMALE



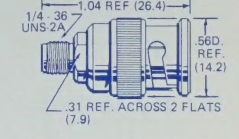
BF – SM

SMA FEMALE TO BNC FEMALE



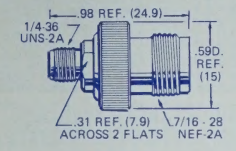
BF – SF

SMA FEMALE TO BNC MALE



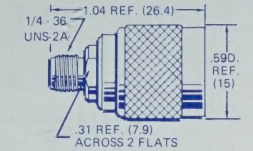
BM – SF

SMA FEMALE TO TNC FEMALE



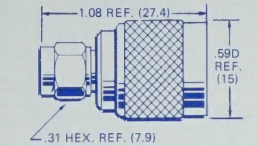
TF – SF

SMA FEMALE TO TNC MALE



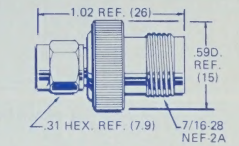
TM – SF

SMA MALE TO TNC MALE



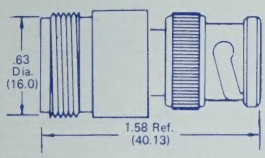
TM – SM

SMA MALE TO TNC FEMALE



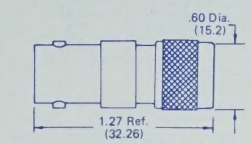
TF – SM

TYPE "N" FEMALE TO BNC MALE



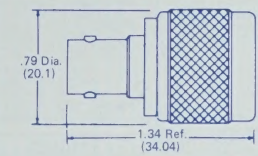
NF – BM

BNC FEMALE TO TNC MALE



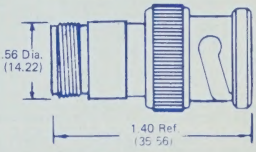
BF – TM

BNC FEMALE TO TYPE "N" MALE



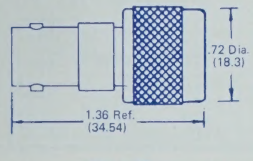
NM – BF

TNC FEMALE TO BNC MALE



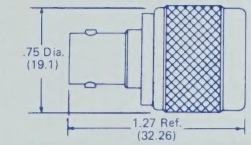
BM – TF

BNC FEMALE TO UHF MALE



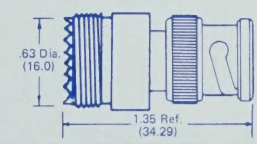
UM – BF

BNC FEMALE TO TYPE "C" MALE



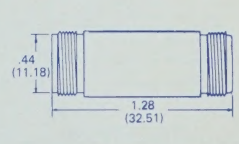
CM – BF

UHF FEMALE TO BNC MALE



UF – BM

TNC FEMALE TO FEMALE ADAPTER



TF – TF

For Precision Stainless Steel Construction - Prefix "X" (See Precision Adapter Section)

All dimensions shown in (millimeters) inches.

MIDISCO

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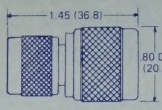
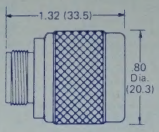
COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C, CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

TYPE "N" MALE TO TNC MALE



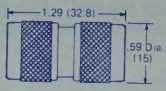
NM – TM

TYPE "N" MALE TO TNC FEMALE



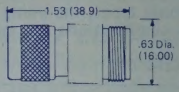
NM – TF

TNC MALE TO TNC MALE



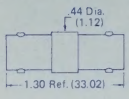
TM – TM

TYPE "N" FEMALE TO TNC MALE



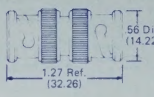
NF – TM

BNC FEMALE TO FEMALE



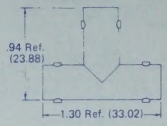
BF – BF

BNC MALE TO MALE



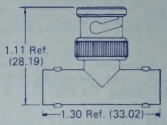
BM – BM

BNC "T" – 3 FEMALES



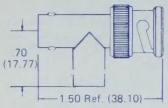
BF – BF – BF

BNC FEMALE, MALE, FEMALE



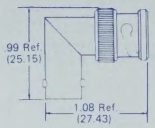
BF – BM – BF

BNC "T" MALE, FEMALE, FEMALE



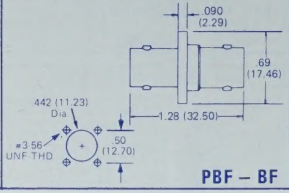
BM – BF – BF

RIGHT ANGLE BNC FEMALE TO BNC MALE



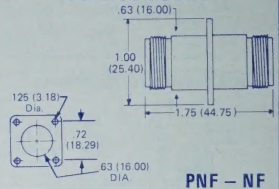
RBF – BM

BNC FEMALE TO FEMALE FLANGE MOUNT



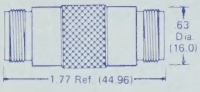
PBF – BF

TYPE "N" FEMALE TO FEMALE FLANGE MOUNT



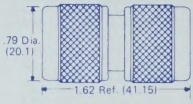
PNF – NF

TYPE "N" FEMALE TO FEMALE



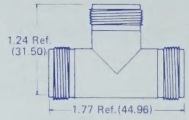
NF – NF

TYPE "N" MALE TO MALE



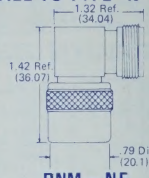
NM – NM

TYPE "N" TEE – 3 FEMALES



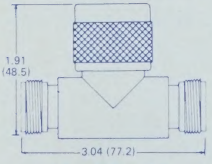
NF – NF – NF

RIGHT ANGLE TYPE "N" FEMALE TO TYPE "N" MALE



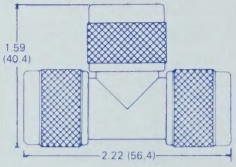
RNM – NF

TYPE "N" TEE FEMALE, MALE, FEMALE



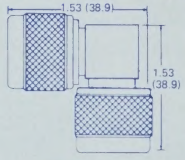
NF – NM – NF

TYPE "N" TEE – 3 MALES



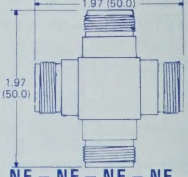
NM – NM – NM

RIGHT ANGLE TYPE "N" MALE TO TYPE "N" MALE



RNM – NM

4 WAY TYPE "N" FEMALE ADAPTER



NF – NF – NF – NF

For Precision Stainless Steel Construction - Prefix "X" (See Precision Adaptor Section)

All dimensions shown in (millimeters) inches.

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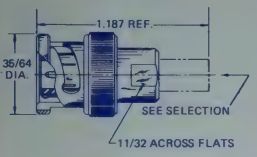
COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C, CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

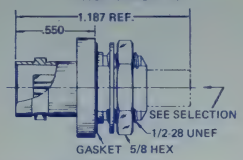
BNC TO SUBMINIATURE (SMB, SMC, 50 AND 75 OHM)

BNC PLUG



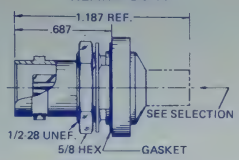
MDC 4021 – ( )

BNC BULKHEAD JACK FRONT MOUNT



MDC 4022 – ( )

BNC BULKHEAD JACK REAR MOUNT

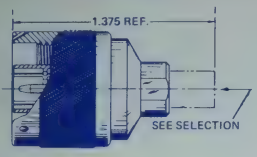


MDC 4023 – ( )

To	Suffix
SMC Male Jack	-1
SMC Female Plug	-2
SMB Male Jack	-3
SMB Female Plug	-4
75 Ohm Screw-On Male Jack	-5
75 Ohm Screw-On Female Plug	-6
75 Ohm Snap-On Male Jack	-7
75 Ohm Snap-On Female Plug	-8

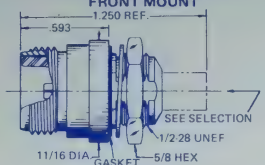
N TO SUBMINIATURE (SMB, SMC, 50 AND 75 OHM)

N PLUG



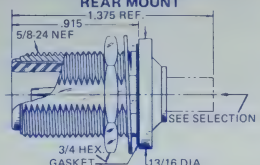
MDC 4024 – ( )

N BULKHEAD JACK FRONT MOUNT



MDC 4025 – ( )

N BULKHEAD JACK REAR MOUNT

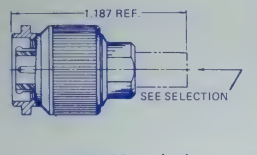


MDC 4026 – ( )

To	Suffix
SMC Male Jack	-1
SMC Female Plug	-2
SMB Male Jack	-3
SMB Female Plug	-4
75 Ohm Screw-On Male Jack	-5
75 Ohm Screw-On Female Plug	-6
75 Ohm Snap-On Male Jack	-7
75 Ohm Snap-On Female Plug	-8

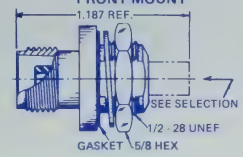
TNC TO SUBMINIATURE (SMB, SMC, 50 AND 75 OHM)

TNC PLUG



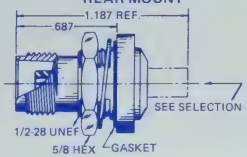
MDC 4027 – ( )

TNC BULKHEAD JACK FRONT MOUNT



MDC 4028 – ( )

TNC BULKHEAD JACK REAR MOUNT

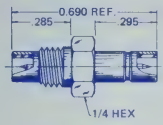


MDC 4029 – ( )

To	Suffix
SMC Male Jack	-1
SMC Female Plug	-2
SMB Male Jack	-3
SMB Female Plug	-4
75 Ohm Screw-On Male Jack	-5
75 Ohm Screw-On Female Plug	-6
75 Ohm Snap-On Male Jack	-7
75 Ohm Snap-On Female Plug	-8

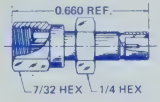
SMB TO SMC ADAPTERS

SMB MALE JACK TO SMC MALE JACK



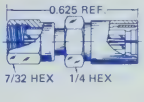
MDC 3041

SMB MALE JACK TO SMC FEMALE PLUG



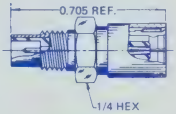
MDC 3042

SMB FEMALE PLUG TO SMC FEMALE PLUG



MDC 3044

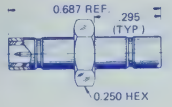
SMB FEMALE PLUG TO SMC MALE JACK



MDC 3045

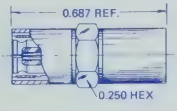
SMB TO SMB ADAPTERS

SMB MALE JACK TO SMB MALE JACK



MDC 6234

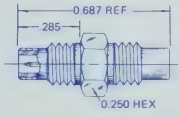
SMB FEMALE PLUG TO SMB FEMALE PLUG



MDC 6237

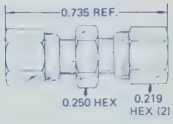
SMC TO SMC ADAPTERS

SMC MALE JACK TO SMC MALE JACK



MDC 8134

SMC FEMALE PLUG TO SMC FEMALE PLUG



MDC 8137

All units are 50 ohms unless specified otherwise.
This series is nickle plated brass.

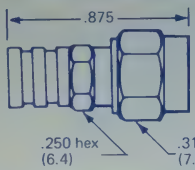
Example: MDC4022-3 is a front mount BNC bulkhead jack to SMB male jack.
For precision stainless steel construction, add x to basic part number (example: MDC 4022X-( ))

COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C,

CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

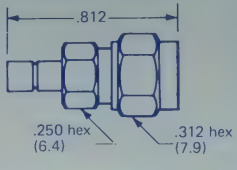
SMA TO SMB ADAPTERS

SMA MALE TO SMB FEMALE



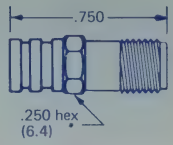
MDC 3038

SMA MALE TO SMB MALE



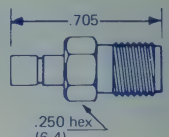
MDC 3037

SMA FEMALE TO SMB FEMALE



MDC 3034

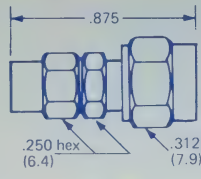
SMA FEMALE TO SMB MALE



MDC 3033

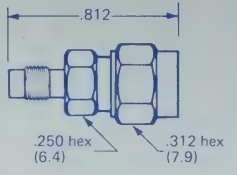
SMA TO SMC ADAPTERS FREQUENCY: DC - 10 GHz VSWR 1.04 + .007f GHz (max.)

SMA MALE TO SMC FEMALE



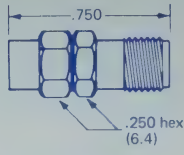
MDC 3040

SMA MALE TO SMC MALE



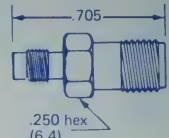
MDC 3039

SMA FEMALE TO SMC FEMALE



MDC 3036

SMA FEMALE TO SMC MALE



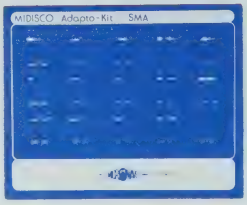
MDC 3035

NOTE: SMB, SMC plugs have female contact. SMA plugs have male contact.
MATERIAL & FINISH: Stainless Steel passivated or gold plated per applicable MIL specs.

ADAPTO-KITS – FOR COMPLETE SERIES ADAPTATION

SMA, SMB, SMC, N, TNC, BNC

The MIDISCO Adapto-Kit consists of a hanging display board with spring clips which holds a total of 15 inter and intra series adapters. Kits are available in N, TNC, BNC, SMA, SMB and SMC Series. This enables the technician to adapt from one series to all of the other series. Replacement adapters are available. Delivery from stock.



EACH ADAPTO-KIT CONSISTS OF ONE (1) EACH OF THE FOLLOWING:

KIT NO. AK-SMB		ADAPTER
FROM	TO	P/N
SMB Male	SMB Male	MDC 6234
SMB Female	SMB Female	MDC 6237
SMB Male	SMC Female	MDC 3042
SMB Male	N Male	MDC 4024-3
SMB Male	TNC Male	MDC 4027-3
SMB Male	BNC Male	MDC 4021-3
SMB Male	SMA Male	MDC 3037
SMB Male	SMC Male	MDC 3041
SMB Male	SMA Female	MDC 3033
SMB Female	SMC Male	MDC 3045
SMB Female	N Male	MDC 4024-4
SMB Female	TNC Male	MDC 4027-4
SMB Female	BNC Male	MDC 4021-4
SMB Female	SMA Male	MDC 3038
SMB Female	SMC Female	MDC 3044

KIT NO. AK-SMC		ADAPTER
FROM	TO	P/N
SMC Male	SMC Male	MDC 8134
SMC Female	SMC Female	MDC 8137
SMC Male	SMB Female	MDC 3045
SMC Male	N Male	MDC 4024-1
SMC Male	TNC Male	MDC 4027-1
SMC Male	BNC Male	MDC 4021-1
SMC Male	SMA Male	MDC 3039
SMC Male	SMB Male	MDC 3041
SMC Male	SMA Female	MDC 3035
SMC Female	SMB Male	MDC 3042
SMC Female	N Male	MDC 4024-2
SMC Female	TNC Male	MDC 4027-2
SMC Female	BNC Male	MDC 4021-2
SMC Female	SMA Male	MDC 3040
SMC Female	SMB Female	MDC 3044

KIT NO. AK-SMA		ADAPTER
FROM	TO	P/N
SMA Male	SMA Male	SM-SM
SMA Female	SMA Female	SF-SF
SMA Male	SMA Female	SM-SF
SMA Male	N Male	NM-SM
SMA Male	N Female	NF-SM
SMA Male	TNC Male	TM-SM
SMA Male	TNC Female	TF-SM
SMA Male	BNC Male	BM-SM
SMA Male	BNC Female	BF-SM
SMA Female	N Male	NM-SF
SMA Female	N Female	NF-SF
SMA Female	TNC Male	TM-SF
SMA Female	TNC Female	TF-SF
SMA Female	BNC Male	BM-SF
SMA Female	BNC Female	BF-SF

KIT NO. AK-N		ADAPTER
FROM	TO	P/N
N Male	N Male	NM-NM
N Female	N Female	NF-NF
N Male	N Female	NM-NF
N Male	SMA Male	NM-SM
N Male	SMA Female	NM-SF
N Male	TNC Male	NM-TM
N Male	TNC Female	NM-TF
N Male	BNC Male	NM-BM
N Male	BNC Female	NM-BF
N Female	SMA Male	NF-SM
N Female	SMA Female	NF-SF
N Female	TNC Male	NF-TM
N Female	TNC Female	NF-TF
N Female	BNC Male	NF-BM
N Female	BNC Female	NF-BF

KIT NO. AK-TNC		ADAPTER
FROM	TO	P/N
TNC Male	TNC Male	TM-TM
TNC Female	TNC Female	TF-TF
TNC Male	TNC Female	TM-TF
TNC Male	SMA Male	TM-SM
TNC Male	SMA Female	TM-SF
TNC Male	N Male	NM-TM
TNC Male	N Female	NF-TM
TNC Male	BNC Male	BM-TM
TNC Male	BNC Female	BF-TM
TNC Female	SMA Male	TF-SM
TNC Female	SMA Female	TF-SF
TNC Female	N Male	NM-TF
TNC Female	N Female	NF-TF
TNC Female	BNC Male	BM-TF
TNC Female	BNC Female	BF-TF

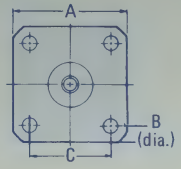
KIT NO. AK-BNC		ADAPTER
FROM	TO	P/N
BNC Male	BNC Male	BM-BM
BNC Female	BNC Female	BF-BF
BNC Male	BNC Female	BM-BF
BNC Male	SMA Male	BM-SM
BNC Male	SMA Female	BM-SF
BNC Male	N Male	NM-BM
BNC Male	N Female	NF-BM
BNC Male	TNC Male	BM-TM
BNC Male	TNC Female	BM-TF
BNC Female	SMA Male	BF-SM
BNC Female	SMA Female	BF-SF
BNC Female	N Male	NM-BF
BNC Female	N Female	NF-BF
BNC Female	TNC Male	BF-TM
BNC Female	TNC Female	BF-TF

MIDISCO
61 MALL DRIVE / COMMACK, NEW YORK 11725
1-800-637-4353 / IN N.Y. (516) 543-4774 / FAX (516) 543-4129

COAXIAL ADAPTERS — STANDARD & PRECISION — BNC, C, CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

Precision inter and intra series adapters, with performance to 26 GHz and beyond, appear on the pages following. Construction is in accordance with MIL-C-39012 and MIL-A-55339, where applicable. In most cases, material is stainless steel passivated or gold plated, remaining consistent with that normally specified in that connector series.

For lower frequency applications, see the MIDISCO standard series adapters in another section of this catalogue. Additional adapters, not shown here, are usually from stock. Custom adapters are also available.

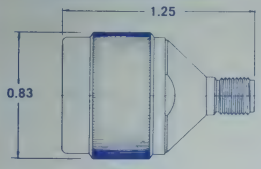


FEATURES

- Low VSWR
- Broadband coverage
- Simplified numbering
- Precision construction
- Smallest size for best performance
- Bulkhead and panel types
- Straight or right angle types
- Radius (bent) configurations
- Performance to 26 GHz and up
- Delivery from stock

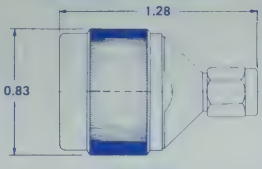
FREQUENCY: DC - 18 GHz VSWR: 1.05 + .007 f GHz MATERIAL IS PASSIVATED STAINLESS STEEL

N MALE TO SMA FEMALE



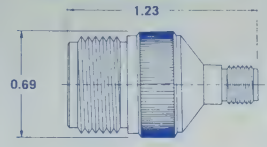
XNM - SF

N MALE TO SMA MALE



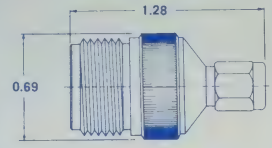
XNM - SM

N FEMALE TO SMA FEMALE



XNF - SF

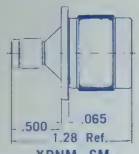
N FEMALE TO SMA MALE



XNF - SM

FREQUENCY: DC - 18 GHz VSWR: 1.05 + .007 f GHz MATERIAL IS PASSIVATED STAINLESS STEEL

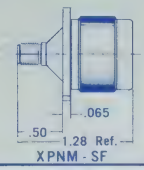
PANEL MOUNT N MALE TO SMA MALE



A=1.000
B= .125
C= .719

XPNM - SM

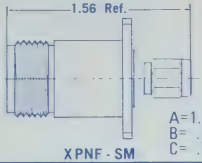
PANEL MOUNT N MALE TO SMA FEMALE



A=1.000
B= .125
C= .719

XPNM - SF

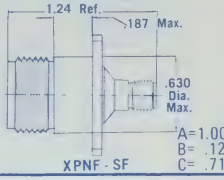
PANEL MOUNT N FEMALE TO SMA MALE



A=1.000
B= .125
C= .719

XPNF - SM

PANEL MOUNT N FEMALE TO SMA FEMALE

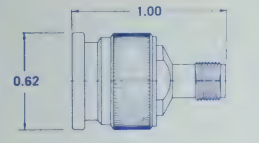


A=1.000
B= .125
C= .719

XPNF - SF

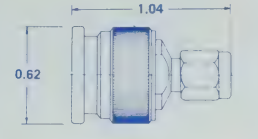
FREQUENCY: DC - 15 GHz VSWR: 1.04 + .005 f GHz MATERIAL IS PASSIVATED STAINLESS STEEL

TNC MALE TO SMA FEMALE



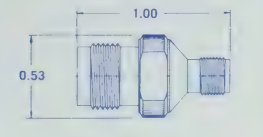
XTM - SF

TNC MALE TO SMA MALE



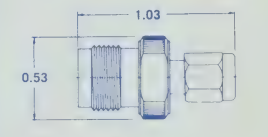
XTM - SM

TNC FEMALE TO SMA FEMALE



XTF - SF

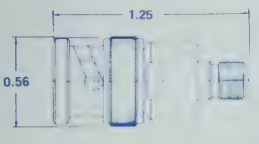
TNC FEMALE TO SMA MALE



XTF - SM

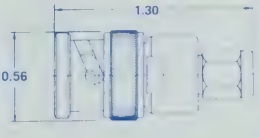
BNC IS BRASS WITH BRIGHT ALLOY FINISH; SMA IS PASSIVATED STAINLESS STEEL

BNC MALE TO SMA FEMALE



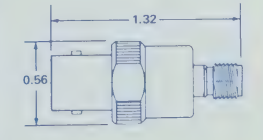
XBM - SF

BNC MALE TO SMA MALE



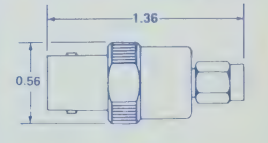
XBM - SM

BNC FEMALE TO SMA FEMALE



XBF - SF

BNC FEMALE TO SMA MALE



XBF - SM

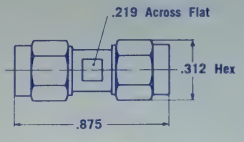
NOTE: Dimensions are for reference and are subject to change.

COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C,

CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

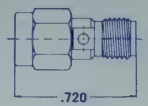
FREQUENCY: DC-18 GHz VSWR: 1.05 + .005 f GHz MATERIAL IS PASSIVATED STAINLESS STEEL

SMA MALE TO SMA MALE



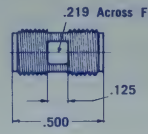
SM - SM - S

SMA MALE TO SMA FEMALE



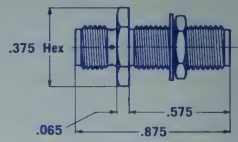
SM - SF - S

SMA FEMALE TO SMA FEMALE



SF - SF - S

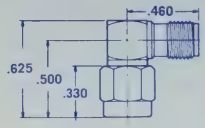
BULKHEAD SMA FEMALE TO SMA FEMALE



BSF - SF - S

FREQUENCY: DC - 18 GHz VSWR: 1.05 + .010 f GHz
MATERIAL IS PASSIVATED STAINLESS STEEL

RIGHT ANGLE SMA MALE TO SMA FEMALE



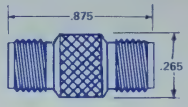
RSM - SF - S

RIGHT ANGLE SMA MALE TO SMA MALE

RSM - SM - S

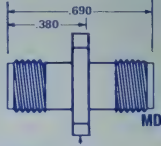
FREQUENCY: DC-18 GHz VSWR: 1.05 + .005 f GHz
MATERIAL IS PASSIVATED STAINLESS STEEL

SMA FEMALE TO SMA FEMALE WITH KNURL



MDC 3125S

SMA FEMALE PANEL ADAPTER

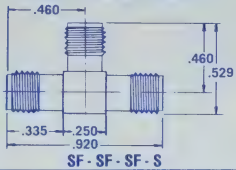


MDC 3145S-2 (2 Hole)

MDC 3145S
A=.500
B=.102
C=.340

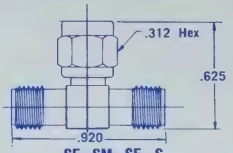
VSWR TYPICALLY 2:1 MATERIAL IS PASSIVATED STAINLESS STEEL

SMA TEE FEMALE - FEMALE - FEMALE



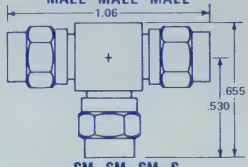
SF - SF - SF - S

SMA TEE FEMALE - MALE - FEMALE



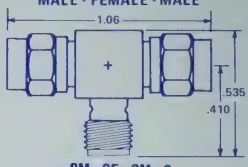
SF - SM - SF - S

SMA TEE MALE - MALE - MALE



SM - SM - SM - S

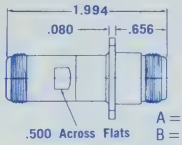
SMA TEE MALE - FEMALE - MALE



SM - SF - SM - S

FREQUENCY: DC - 18 GHz VSWR: 1.15 MAX MATERIAL IS PASSIVATED STAINLESS STEEL

PANEL MOUNT N FEMALE TO N FEMALE



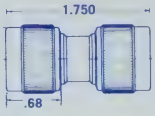
A = 1.000
B = .125
C = .718

XPNF - NF

N FEMALE TO N FEMALE

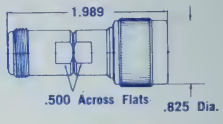
XNF - NF

N MALE TO N MALE



XNM - NM

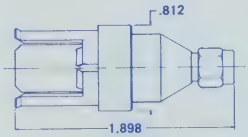
N MALE TO N FEMALE



XNM - NF

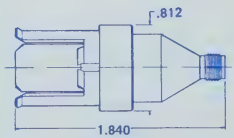
MATERIAL IS PASSIVATED STAINLESS STEEL

GR 874 TO SMA MALE *



874 - SM

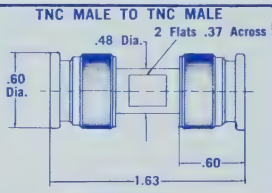
GR 874 TO SMA FEMALE *



874 - SF

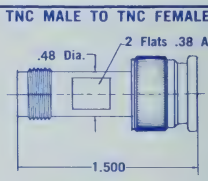
FREQUENCY: DC - 18 GHz VSWR 1.25 MAX. MATERIAL IS PASSIVATED STAINLESS STEEL

TNC MALE TO TNC MALE



XTM - TM

TNC MALE TO TNC FEMALE



XTM - TF - S

* 874 Adapters are available to BNC, N, TNC and other series.
All Dimensions are Reference and are subject to slight changes.
See page 11 for A, B, C Flange Dimensions.

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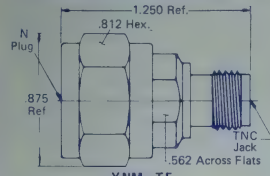
61 MALL DRIVE / COMMACK, NEW YORK 11725
1-800-637-4353 / IN N.Y. (516) 543-4774 / FAX (516) 543-4129

COAXIAL ADAPTERS – STANDARD & PRECISION – BNC, C, CPC (blind mate), GR 874, HN, N, SMA, SMB, SMC, SSMA, TNC, UHF, 2.4mm, 3.5mm, 7mm

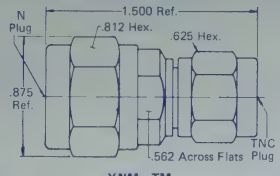
MATERIAL IS PASSIVATED STAINLESS STEEL

N MALE TO TNC FEMALE



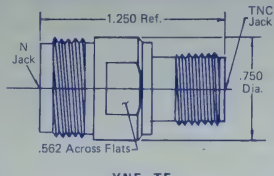
XNM - TF

N MALE TO TNC MALE



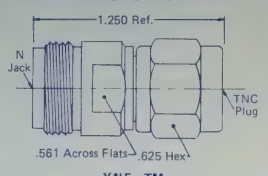
XNM - TM

N FEMALE TO TNC FEMALE



XNF - TF

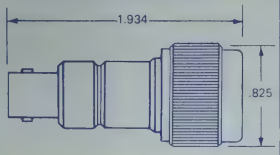
N FEMALE TO TNC MALE



XNF - TM

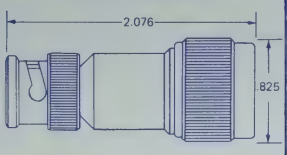
BNC MALE & TYPE N: PASSIVATED STAINLESS STEEL BNC FEMALE: NICKEL PLATED BRASS

N MALE TO BNC FEMALE



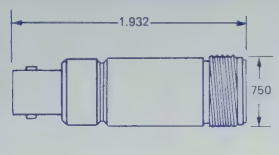
XNM - BF

N MALE TO BNC MALE



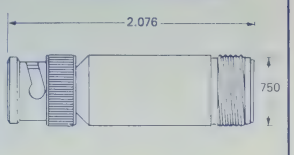
XNM – BM

N FEMALE TO BNC FEMALE



XNF – BF

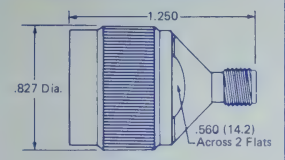
N FEMALE TO BNC MALE



XNF - BM

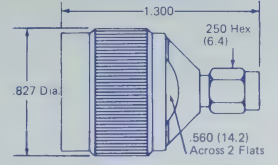
FREQUENCY: DC-18 GHz VSWR 1.30 MAX MATERIAL IS PASSIVATED STAINLESS STEEL

N MALE TO SSMA FEMALE



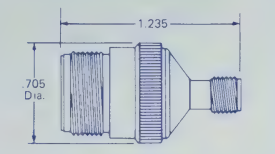
MDC 7905

N MALE TO SSMA MALE



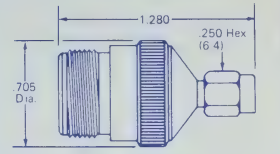
MDC 7911

N FEMALE TO SSMA FEMALE



MDC 7906

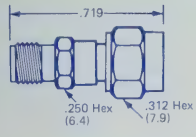
N FEMALE TO SSMA MALE



MDC 7912

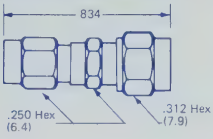
FREQUENCY: DC-26 GHz VSWR 1.30 MAX MATERIAL IS PASSIVATED OR GOLD PLATED STAINLESS STEEL

SMA MALE TO SSMA FEMALE



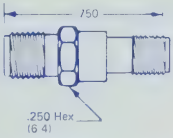
MDC 3100

SMA MALE TO SSMA MALE



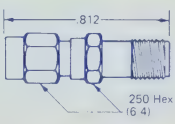
MDC 3314

SMA FEMALE TO SSMA FEMALE



MDC 3313

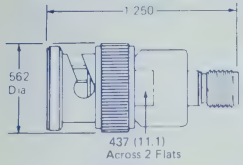
SMA FEMALE TO SSMA MALE



MDC 3312

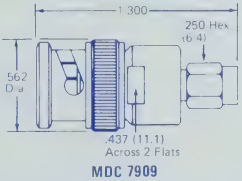
BNC MALE: NICKEL PHOSPHER BRONZE. BNC FEMALE: NICKEL PLATED BRASS SSMA: PASSIVATED STAINLESS STEEL

BNC MALE TO SSMA FEMALE



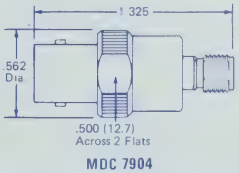
MDC 7903

BNC MALE TO SSMA MALE



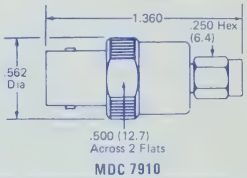
MDC 7909

BNC FEMALE TO SSMA FEMALE



MDC 7904

BNC FEMALE TO SSMA MALE

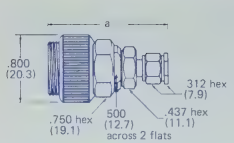


MDC 7910

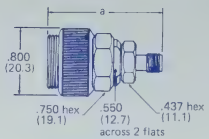
7mm COAXIAL ADAPTERS

MIDISCO 7mm precision adapters have low VSWR over wide frequencies. Adapters are available from 7mm to N, TNC, BNC, SMA, SSMA, 3.5mm and 2.4mm. Specifications are shown for the adapter and for a mated pair of 7mm connectors alone. The connectors as well as the adapters are available from stock.

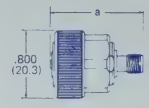
Adapter Ends		Dimensions, inches (millimeters) a	Maximum VSWR to 18GHz	Midisco Number
7 mm	2.4 mm Plug	1.420 (36.1)	1.01 + 0.004f (GHz)	2.4M-7
7 mm	2.4 mm Jack	1.420 (36.1)	1.01 + 0.004f (GHz)	2.4F-7
7 mm	SSMA Plug	1.300 (33.0)	1.01 + 0.005f (GHz)	SSM-7
7 mm	SSMA Jack	1.380 (35.0)	1.01 + 0.005f (GHz)	SSF-7
7 mm	N Jack	1.672 (42.5)	1.01 + 0.002f (GHz)	NF-7
7 mm	N Plug	1.813 (46.0)	1.01 + 0.002f (GHz)	NM-7
7 mm	TNC Jack	1.609 (40.9)	1.01 + 0.006f (GHz)	TF-7
7 mm	TNC Plug	1.750 (44.5)	1.01 + 0.006f (GHz)	TM-7
7 mm	BNC Jack	1.609 (40.9)	1.035 @ 4 GHz	BF-7
7 mm	BNC Plug	1.719 (43.7)	1.035 @ 4 GHz	BM-7
7 mm	3.5 mm Plug	1.567 (39.8)	1.02 + 0.0025f (GHz)	3.5M-7
7 mm	3.5 mm Jack	1.483 (37.7)	1.02 + 0.0025f (GHz)	3.5F-7
7 mm	SMA Jack	1.31 (33.3)	1.02 + 0.0025f (GHz)	SF-7
7 mm	SMA Plug	1.39 (35.3)	1.02 + 0.0025f (GHz)	SM-7



MODEL SM-7
7 mm to SMA plug



MODEL SF-7
7 mm to SMA jack



MODEL 3.5F-7
7 mm to 3.5 mm jack

ELECTRICAL (for mated pair 7 mm connectors)

Impedance	50 ohm
Frequency range	0-18 GHz
VSWR	1.003+ .002f (GHz)
Insertion loss (in dB)	.7 × √f(GHz) (example: 0.028 dB at 16.0 GHz)
RF leakage	signal inside coaxial line by ratio 120 dB▲
Electrical length	693 inches (1.76 cm)
Contact resistance	Inner 1.0 milliohm Outer 0.1 milliohm
Voltage Rating	1000 vrms
Dielectric withstanding Voltage (max.)	2500 vrms
Max. Power (watts at Sea Level)	Above 1 MHz 10 kW × √f(MHz) Up to 1 MHz 10 kW

▲ RF Leakage: Until satisfactory test methods are developed the maximum frequency of measurement is limited to 6.0 GHz

ENVIRONMENTAL

Thermal limits	Storage: 67° to 158°F (-55° to 70°C) Operating: -55° to 91°F (-13° to 33°C)
Humidity	20 to 80% RH
Pressure	590 to 780 mm Hg

MECHANICAL

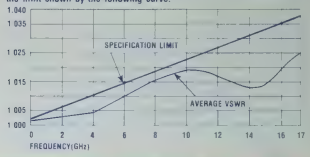
Mating	Sexless, coplanar by means of threaded ring housed within coupling nut
Life	5000 connect-disconnect operations

MATERIAL

Coupling mechanism	Stainless steel
Body	Gold plated beryllium copper
Center contact	Gold plated beryllium copper
Dielectric support	Air-polyphenylene oxide composite
Clamping components	Nickel plated brass
Crimp ferrule	Nickel plated copper
Airline inner and Outer conductors	Gold plated tellurium copper

*These characteristics are typical and may not apply to all connectors.

VSWR. Connector pairs are tested and certified to have a VSWR less than the limit shown by the following curve:



7mm ACCESSORIES

AIRLINES - ATTENUATORS - TERMINATIONS - CONNECTORS

MIDISCO 7mm Airline 50 ohm laboratory reference standards are primarily used with Time Domain Reflectometers. They can accurately establish knowledgeable wavelengths when Smith Chart plotting very precise measurements. Construction as per the requirements of the APC-7 connector (see above) plus stainless steel tubing.

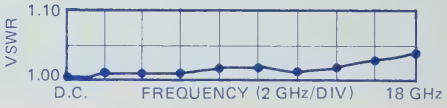
Fluted or hex knurled coupling nuts are standard.

Other accessories, shown elsewhere in this catalog, include 7mm adapters, attenuators and terminations.

FEATURES

- Precision 7mm (APC-7) connectors
- Frequency DC to 18 GHz
- VSWR is 1.006 + 0.002f(GHz)
- Impedance is 50 ohms ±0.1
- Rugged precise construction

Model	Description	Length "L"	Electrical Length
MDC1014-5	Airline Assembly	2.600 (66.04)	2.689 (68.30)
MDC1014-2	Airline Assembly	3.406 (86.51)	3.248 (82.49)
MDC1014-6	Airline Assembly	3.600 (91.44)	3.685 (93.60)
MDC1014-0	Airline Assembly	4.344 (110.34)	4.185 (106.30)
MDC1014-1	Airline Assembly	6.030 (153.16)	5.870 (149.09)
MDC1014-3	Set of all five above		
131-1051	APC-7 Connector	0.922 (23.4)	0.693 (17.6)



f* denotes frequency in GHz

MIDISCO
61 MALL DRIVE / COMMACK, NEW YORK 11725
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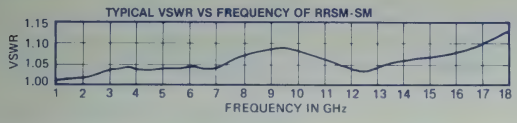
RADIUS SWEPT 90° ADAPTERS & CONNECTORS – N – TNC – SMA

MIDISCO swept adapters and connectors consist of a bent section that houses a one-piece center conductor. This design eliminates the vibration and shock failures that could occur if there were a solder joint. Superior VSWR to 18 GHz is inherent in the design.



FEATURES

- One piece center conductor
- Low VSWR to 18 GHz
- BeCu or Stainless construction
- SMA, N or TNC
- Specials available
- Low susceptibility to vibration and shock
- Delivery from stock

MODEL	ADAPTER ENDS		DIMENSIONS, INCHES (millimeters) A	B
RRNM-NM-S	N PLUG	N PLUG	1.094 (27.8)	1.084 (27.5)
RRNM-NF-S	N PLUG	N JACK	1.109 (28.2)	1.000 (25.4)
RRSM-SM-S	SMA PLUG	SMA PLUG	0.550 (14.0)	0.550 (14.0)
RRSM-SF-S	SMA PLUG	SMA JACK	0.550 (14.0)	0.460 (11.7)
RRTM-TM-S	TNC PLUG	TNC PLUG	1.060 (26.9)	1.060 (26.9)
RRTM-TF-S	TNC PLUG	TNC JACK	0.953 (24.2)	1.060 (26.9)

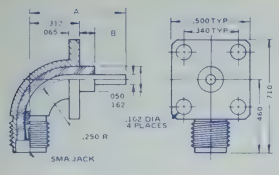


FIG. 1

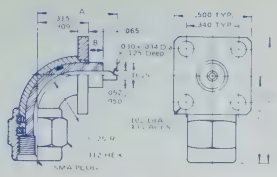


FIG. 2

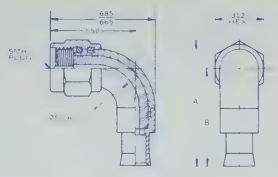


FIG. 3

MODEL	DESCRIPTION	A	B	FIG
MDC0451S	Extended contact with .590 insulator	1.017	0.590	1
MDC0452S	SMA female (jack) solder pot as per Fig. 2	0.488	0.090	1
MDC0453S	Extended contact & insulator	0.612	0.100	1
MDC0454S	Contact flush with insulator	0.522	0.210	1
MDC0455S	Multi-purpose	1.212	0.710	1
MDC0456S	Flush insulator, extended contact	0.747	0.000	1
MDC0457S	Flush insulator, extended contact	0.511	0.000	1

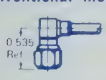
MODEL	DESCRIPTION	A	B	FIG
MDC0458S	Plug with solder pot (.030D x .125 deep)	0.488	0.090	2
MDC0459S	Plug with straight contact	0.687	0.100	2
MDC0460S	Plug for RG55, 142, 223 cable	0.960	0.780	3
MDC0461S	Plug for 0.141 (RG402) cable	0.812	0.625	3
MDC0462S	Plug for 0.085 (RG405) cable	0.712	0.525	3
MDC0463S	Plug, extended contact, 0.590 insulator per Fig. 1	1.017	0.590	2

NOTE: To order gold plated units, do not include -S in part number.

SMA RIGHT ANGLE BENT ASSEMBLY

MIDISCO bending techniques, combined with the ultra short SMA Plugs MDC 1141S for RG 402 (0.141) and MDC 1085S for RG 405 (0.085), eliminate the need for conventional mitred right angle semi-rigid cable connectors. The user specifies the cable type and length up to 60" and receives the connector already attached with a tight 90° bend at one end. Any lengths are available from stock.

Conventional Method



BENT CABLE METHOD

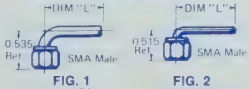
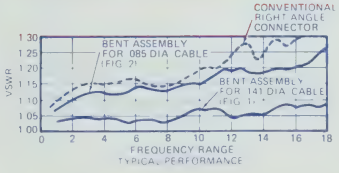


FIG. 1
0.141 Dia.

FIG. 2
0.085 Dia.

"L" = length in inches.



ORDERING INFORMATION

Part Number For 0.141 Cable	Part Number For 0.085 Cable
MDC1052-"L"	MDC1053-"L"

FEATURES

- Lower VSWR than with mitred connectors
- Standard with 0.085 and 0.141 semi-rigid cable
- Saves assembly time
- Available with MIDISCO Snake Cable (Re-bendable)
- Same or lower profile than right angle connectors
- Other types available
- Delivery from stock

MIDISCO

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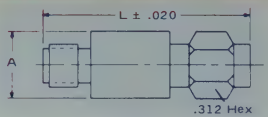
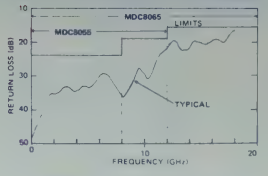
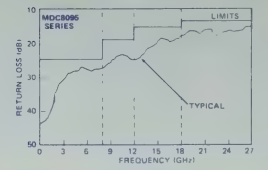
COAXIAL ATTENUATORS

SMA

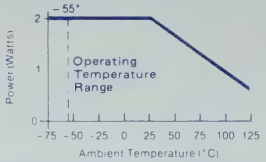
MIDISCO SMA attenuators are ruggedly constructed to all military specifications where applicable; including MIL-A-3933 and MIL-C-39012. A sufficient selection is included here for various frequency applications. Each performs well within the specified limits from −65° to +125°C. The MDC 7065 series will handle higher input power for some attenuation values. All models will handle 2 watts at +25°C derated to 0.5 watts at +125°C. Higher power models and other attenuation values are available. Upper frequency models use a thin-film laser trimmed attenuation element on a ceramic substrate. MDC 1055 and 1065 have square bodies that technicians desire for the laboratory; all others are round. Calibration data is available at extra cost. Double male or female is specified by the suffix "M" or "F". All are in stock.







TYPICAL TEMPERATURE VS. POWER DERATING CHART



FEATURES

- Meets or exceeds all applicable MIL Specs
- 50 Ohms Impedance
- Rugged stainless steel construction
- −55° to +125°C operating temperature
- All attenuation values available
- Calibration chart at nominal cost
- Phase track ±5° typical between units
- Smallest models made
- Low VSWR
- Extremely flat over frequency
- Delivery from stock

FREQ. RANGE (GHz)	DC-2.5	DC-8.0	DC-12.4		DC-18.0			DC-26.5
MODEL	MDC 1012-dB	MDC 8030-dB	* MDC 1055-dB	MDC 8055-dB	* MDC 1065-dB	MDC 8065-dB	MDC 7065-dB	MDC 8095-dB
ATTENUATION AND MAXIMUM DEVIATION OVER THE ENTIRE FREQUENCY RANGE IN dB (deviation is much tighter over narrower frequency segments—contact MIDISCO for data)	0±0.30 1±0.30 2±0.30 3±0.30 4±0.30 5±0.30 6±0.35 7±0.35 8±0.40 9±0.45 10±0.50 11±0.50 12±0.60 13±0.60 14±0.70 15±0.70 16±0.80 17±0.80 18±0.90 19±0.90 20±1.00 30±1.50 40±1.75	0±0.30 1±0.30 2±0.30 3±0.30 4±0.30 5±0.30 6±0.30 7±0.30 8±0.30 9±0.30 10±0.30 11±0.50 12±0.50 13±0.50 14±0.50 15±0.50 16±0.50 17±0.50 18±0.50 19±0.50 20±0.50 30±0.60 40±0.75	0±0.30 1±0.30 2±0.30 3±0.30 4±0.30 5±0.30 6±0.30 7±0.35 8±0.40 9±0.45 10±0.50 11±0.50 12±0.60 13±0.60 14±0.70 15±0.70 16±0.75 17±0.75 18±0.75 19±0.75 20±0.75 30±1.25 40±1.50	0±0.30 1±0.30 2±0.30 3±0.30 4±0.30 5±0.30 6±0.30 7±0.30 8±0.30 9±0.30 10±0.30 11±0.50 12±0.50 13±0.50 14±0.50 15±0.50 16±0.50 17±0.50 18±0.50 19±0.50 20±0.50 30±0.60 40±1.00	0±0.40 1±0.30 2±0.30 3±0.30 4±0.30 5±0.30 6±0.35 7±0.35 8±0.40 9±0.45 10±0.50 11±0.50 12±0.60 13±0.60 14±0.70 15±0.70 16±0.80 17±0.80 18±0.90 19±0.90 20±1.00 30±1.25 40±1.50	0±0.30 1±0.30 2±0.30 3±0.30 4±0.30 5±0.30 6±0.30 7±0.40 8±0.40 9±0.40 10±0.40 11±0.50 12±0.50 13±0.50 14±0.50 15±0.50 16±0.50 17±0.50 18±0.50 19±0.50 20±0.50 30±0.60 40±1.00	0±0.40 1±0.65 2±0.65 3±0.70 4±0.70 5±0.80 6±0.80 7±0.80 8±0.80 9±0.90 10±0.90 11±0.90 12±0.90 13±1.00 14±1.00 15±1.00 16±1.00 17±1.00 18±1.00 19±1.00 20±1.00 30±1.20 40±1.75	0±0.30 1±0.50 2±0.50 3±0.50 4±0.50 5±0.60 6±0.60 7±0.60 8±0.70 9±0.70 10±0.70 11±0.75 12±0.75 13±0.75 14±0.75 15±0.75 16±0.75 17±0.75 18±0.75 19±0.75 20±0.75 30±1.00 40±1.50
Length "L" (in.)	1.45 max (0-20dB) 2.15 max (30-40dB)	(0-12dB) 0.86 (13-30dB) 1.02 (40dB) 1.34	1.25 max all models	(0-12dB) 0.86 (13-30dB) 1.02 (40dB) 1.34	1.25 max. all models	(0-12dB) 0.86 (13-30dB) 1.02 (40dB) 1.34	(0-20dB) 0.75 (30-40dB) 0.95	(0-12dB) 0.86 (13-30dB) 1.02 (40dB) 1.34
"A" (nom.)	0.375 dia.	0.30 dia.	*0.375 sq.	0.30 dia.	*0.375 sq.	0.30 dia.	0.35 dia.	0.30 dia.
Weight (oz.)	0.25	0.15	0.25	0.15	0.25	0.15	0.18	0.15
VSWR (max.) @ f (GHz)	DC-1.0 (1.20) 1.0-2.5 (1.30)	DC-4.0 (1.15) 4.0-8.0 (1.25)	DC-4.0 (1.15) 4.0-10.0 (1.30) 10.0-12.4 (1.35)	DC-8.0 (1.15) 8.0-12.4 (1.25)	DC-4.0 (1.15) 4.0-8.0 (1.30) 8.0-12.4 (1.35) 12.4-18.0 (1.40)	DC-8.0 (1.20) 8.0-12.4 (1.25) 12.4-18.0 (1.35)	DC-8.0 (1.20) 8.0-12.4 (1.25) 12.4-18.0 (1.35)	DC-8.0 (1.15) 8.0-12.4 (1.25) 12.4-18.0 (1.35) 18.0-26.5 (1.50)
Power	2 watts average and 500 watts peak - maximum rated average power at 25 °C ambient temperature that derates linearly to 1.25 watts at + 75 °C and 0.5 watt at + 125 °C.						2w Avg. (min) 200 w peak	See MDC 8065

NOTE: All SMA Attenuators are Stainless Steel.
*MDC1055R and MDC1065R series are available with 0.30 diameter round body indicated by suffix "R".

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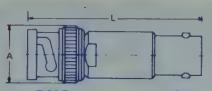
COAXIAL ATTENUATORS

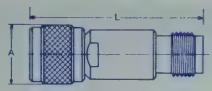
TYPE BNC – N – TNC – 7mm

MIDISCO attenuators are designed to exceed MIL-A-3933 and MIL-C-39012 where applicable. The high quality models shown here provide the user with a sufficient selection of attenuation values and frequency coverage to properly select for the application. Other attenuation values, different connector types such as SMB, SMC, SSMA and higher power models are available. Calibration charts may be purchased at nominal cost. Double male or female connector combinations are specified by the suffix "M" or "F". All models shown below are in stock.



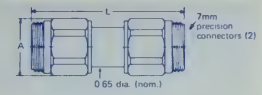
BNC PLUG — BNC JACK

MDC1110B-(dB)

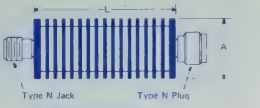


N OR TNC PLUG — N OR TNC JACK

MDC1110N-(dB) MDC5078S-(dB)
MDC1110T-(dB) MDC5079S-(dB)
MDC1088S-(dB)



MDC1106-(dB)

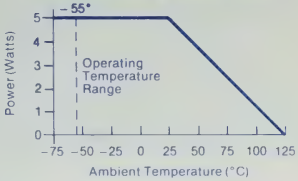


MDC1102-(dB)
MDC1102A-(dB)

FEATURES

- 50 Ohms Impedance
- Up to 20W average power (higher available)
- Rugged brass or stainless construction
- Operating temperature −55°C to +125°C
- All attenuation values available
- Calibration chart at nominal cost
- Low VSWR and attenuation variation
- Good phase tracking
- Meets or exceeds all applicable MIL Specs
- Delivery from stock

Typical Temperature vs: Power Derating Chart for MDC5078S and MDC5079S Series



FREQ. RANGE (GHz)	DC-2.0			DC-4.0	DC-12.4			DC-18.0	
CONNECTOR TYPE	BNC	N	TNC	N	[1] TNC	N		N	7 mm
MODEL	MDC 1110B-(dB)	MDC 1110N-(dB)	MDC 1110T-(dB)	MDC 1102A-(dB)	MDC 1088S-(dB)	MDC 5079S-(dB)	MDC 1102-(dB)	MDC 5078S-(dB)	MDC 1106-(dB)
ATTENUATION AND MAXIMUM DEVIATION OVER THE ENTIRE FREQUENCY RANGE IN dB (deviation is much tighter over narrower frequency segments - contact MIDISCO for data	1±0.3	1±0.3	1±0.3		1±0.3	1±0.3		1±0.4	1±0.3
	2±0.3	2±0.3	2±0.3		2±0.3	2±0.3		2±0.4	2±0.3
	3±0.3	3±0.3	3±0.3	3±0.75	3±0.3	3±0.3	3±0.75	3±0.3	3±0.3
	4±0.4	4±0.4	4±0.4		4±0.3	4±0.3		4±0.3	4±0.3
	5±0.4	5±0.4	5±0.4		5±0.3	5±0.3		5±0.3	5±0.3
	6±0.4	6±0.4	6±0.4	6±0.75	6±0.3	6±0.3	6±0.75	6±0.3	6±0.3
	7±0.4	7±0.4	7±0.4		7±0.3	7±0.3		7±0.3	7±0.5
	8±0.4	8±0.4	8±0.4		8±0.4	8±0.3		8±0.3	8±0.5
	9±0.4	9±0.4	9±0.4		9±0.4	9±0.3		9±0.3	9±0.5
	10±0.4	10±0.4	10±0.4	10±0.75	10±0.5	10±0.5	10±0.75	10±0.5	10±0.5
	11±0.5	11±0.5	11±0.5		11±0.5	11±0.5		11±0.5	11±0.5
	12±0.5	12±0.5	12±0.5		12±0.6	12±0.5		12±0.5	12±0.5
	13±0.5	13±0.5	13±0.5		13±0.6	13±0.5		13±0.5	13±0.5
	14±0.5	14±0.5	14±0.5		14±0.6	14±0.5		14±0.5	14±0.5
	15±1.0	15±1.0	15±1.0		15±0.6	15±0.75		15±0.5	15±0.5
	16±1.0	16±1.0	16±1.0		16±0.7	16±0.75		16±0.5	16±0.5
	17±1.0	17±1.0	17±1.0		17±0.7	17±0.75		17±0.5	17±0.5
	18±1.0	18±1.0	18±1.0		18±0.8	18±0.75		18±0.5	18±0.5
	19±1.0	19±1.0	19±1.0		19±0.9	19±0.75		19±0.5	19±0.5
	20±1.0	20±1.0	20±1.0	20±0.75	20±1.0	20±0.75	20±0.75	20±0.5	20±0.5
	30±1.5	30±1.5	30±1.5	30±1.00	30±1.5	30±0.75	30±1.00	30±1.00	30±1.0
	40±1.5	40±1.5	40±1.5		40±2.0	40±0.75		40±1.00	40±1.0
	50±2.0	50±2.0	50±2.0		50±2.0	50±0.75		50±1.25	50±1.5
	60±2.5	60±2.5	60±2.5		60±2.5	60±1.20		60±1.50	60±1.5
*Length "L" (in) (nom)	2.30	2.50	2.30	3.20	1.80	2.28	3.20	2.28	2.20 (thru 20 dB)
"A" (nom)	0.58 dia.	0.82 dia.	0.63 dia.	1.50 dia.	0.63 dia.	0.83 dia.	1.50 dia.	0.83 dia.	0.87 dia.
Material & Finish	Brass - Nickle or Silver plated.			Stainless Steel & Black Anodize	Brass - Nickle plated	Stainless Steel	Stainless Steel & Black Anodize	Stainless Steel	
Weight (oz)	1.40	2.8	1.40	6.0	1.8	2.6	6.0	2.6	5.0
VSWR (max) @ f (GHz)	DC-2.0 (1.25)			DC-4.0 (1.20)	DC-4.0 (1.15) 4.0-8.0 (1.25) 8.0-12.4 (1.28)	DC-4.0 (1.15) 4.0-8.0(1.20) 8.0-12.4 (1.30)	DC-4.0 (1.20) 4.0-8.0 (1.25) 8.0-12.4 (1.35)	DC-4.0 (1.15) 4.0-8.0 (1.20) 8.0-12.4 (1.25) 12.4-18.0 (1.40)	DC-18.0 1.07+0.015f (GHz)
Power	2 Watts Average; 200 w Peak			20 watts Avg. 1 Kw peak @ +25°C	2 watts Avg. 500 w peak @ +25°C	5 watts Avg. 1 Kw peak @ +25°C	20 watts Avg. 1 Kw peak @ +25°C	5 watts Avg. 1 Kw peak @ +25°C	2 watts Avg. 100 w peak @ +40°C
Oper. Temp. Range	-55° to +125°C								

*Higher attenuation values may be slightly longer.
[1]Available in Stainless Steel versions up to 18 GHz (MDC1088SX, etc.) consult MIDISCO.

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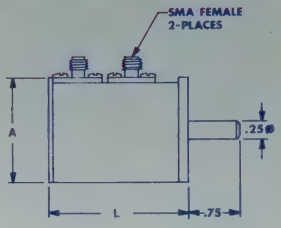
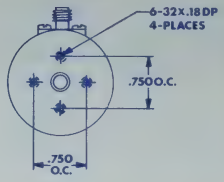
ROTARY ATTENUATORS - 50 & 75 OHM

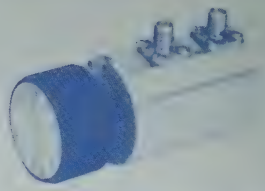
MIDISCO Rotary Step Attenuators are available in sufficient variety to satisfy most requirements. Rugged construction (MDC2017S-117 has a life design of 100,000 cycles minimum) is apparent in all models. Other connector types may be ordered as well as dual concentric types in 50 and 75 ohms. Delivery is from stock.





FEATURES

- Rugged Construction
- SMA, BNC, N, or F connectors
- Excellent electrical performance
- Dual Concentric Types Available
- Low Cost
- Delivery From Stock



MODEL	FREQUENCY RANGE (MHz)	IMPEDANCE NOM (ohms)	ATTENUATION RANGE	VSWR/INSERTION LOSS MAXIMUM vs FREQUENCY		ATTENUATION ACCURACY (+/− dB max)			POWER AVG(W)	L (in.)	A (in.)
MDC2017S-49 (1)	DC-1000	50	0 TO 1dB (4) 0.1dB Steps	DC-1000 1.2/0.7dB	1000-2000 N/A	DC-30 0.01	30-500 0.03	500-1000 0.05	2	2.00	1.50
MDC2017S-40 (1) (6)	DC-2000	50	0 TO 10dB (4) 1dB Steps	1.2/0.2dB	1.4/0.4dB	DC-1000 0.2		1000-2000 0.4	1	2.00	1.50
MDC2017S-50 (1) (7)	DC-2000	50	0 TO 70dB (4) 10dB Steps	1.2/0.3dB	1.4/0.5dB	DC-500 0.5 OR 1%	500-1000 0.5 OR 2%	1000-2000 0.5 OR 3% (3)	1	2.70	1.50
MDC2017S-64 (1)	DC-1000	50	0 TO 100dB (4) 10dB Steps	1.2/0.3dB	N/A	DC-500 0.5 OR 1%		500-1000 0.5 OR 2% (3)	1	2.70	1.50
MDC2017S-104 (8)	DC-2000	50	0 TO 10dB (4) 1dB Steps	1.2/0.2dB	1.4/0.4dB	DC-1000 0.2		1000-2000 0.4	1	1.83	1.28
MDC2017S-105 (8)	DC-2000	50	0 TO 60dB (4) 10dB Steps	1.2/0.3dB	1.4/0.5dB	DC-500 0.5 OR 1%	500-1000 0.5 OR 2%	1000-2000 0.5 OR 3% (3)	1	2.40	1.28
MDC2017S-117 (8) (9)	DC-1200	50	0 TO 100dB (5) 10dB Steps	1.3/0.2dB	DC-1200	DC-1200 1.5%			1	2.30	1.28
MDC2017S-184 (8)	DC-4000	50	0 TO 10dB (4) 1dB Steps	DC-2000 1.3/0.25dB	2000-4000 1.5/0.4dB	DC-1000 0.2	1000-2000 0.3	2000-4000 0.4	0.3	1.75	1.63
MDC2717B-27 (2)	DC-500	75	0 TO 1dB (5) 0.1dB Steps	1.3/0.7dB	(DC-500)	DC-30 0.01	30-300 0.02	300-500 0.03	1	2.40	1.87
MDC2717B-23 (2)	DC-500	75	0 TO 10 dB (5) 1dB Steps	1.3/0.4dB	(DC-500)	DC-30 0.1	30-300 0.2	300-500 0.3	1	2.40	1.87
MDC2717B-22 (2)	DC-500	75	0 TO 70 dB (5) 10dB Steps	1.3/0.4dB	(DC-500)	DC-30 0.2	30-300 0.5	300-500 1.0	1	3.00	1.87

NOTES: (1) SMA Female connectors are standard. Change S to B for BNC
(2) BNC Female connectors are standard. Change B to F for Type F.
(3) Whichever is greater of the two is applicable.
(4) The attenuation increases with clockwise rotation.
(5) The attenuation increases with counterclockwise rotation.
(6) MDC2017S-104 available with same specifications; L = 1.83"; 0.77" between centerline of connectors; SMA only.
(7) MDC2017S-105 available (0-60dB only) with same specifications; L = 2.40"; 1.36" between centerline of connectors; SMA only.
(8) Available in SMA only; 0.75" between centerline of connectors.
(9) Shaft length of MDC2017S-117 is 0.62".
All Models have a Peak Power Rating of 1KW, except MDC2017S-184 which is 800 W.
Indexing is 30 degrees, stopping at maximum & minimum.
Operating Temperature Range is -20° C to + 85° C

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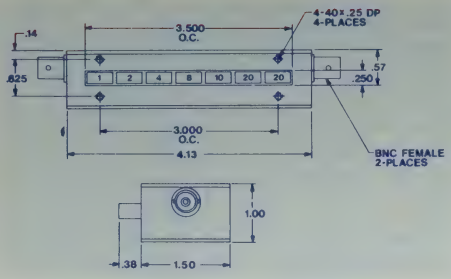
PUSHBUTTON ATTENUATORS - 50 & 75 OHM

MIDISCO Pushbutton Attenuators are available in four models; two that are 50 Ohm, DC-750 MHz and two types of 75 Ohm, DC-500 MHz. By selecting the proper combination of pushbuttons, the user can have 0.5 or 1 dB steps through 45.5 dB or 65 dB. All models can handle 1 Watt average power, are well constructed, moderately priced and in stock.



FEATURES

- Wide Attenuation Range
- Close Attenuation Accuracy
- 75 or 50 Ohm
- Rugged Construction
- -20°C to +85°C Operating Temperature
- Delivery from stock

MODEL	FREQUENCY RANGE(MHz)	IMPEDANCE NOM(ohms)	ATTENUATION RANGE	ATTENUATION STEPS(dB)	VSWR (max) vs FREQUENCY			INSERTION LOSS (max)	ATTENUATION ACCURACY(+/- dB max)				POWER AVG(W)
					DC-100	100-500	500-750		DC-100	100-300	300-500	500-750	
MDC2018B-22	DC-750	50	0 TO 65dB 1dB Steps	1, 2, 4, 8, 10, 20 & 20	1.1	1.25	1.4	1dB @ 500 MHz	0.3	0.5	0.8	1.3	1
MDC2018B-23	DC-750	50	0 TO 45.5dB 0.5dB Steps	0.5, 1, 2, 4, 8, 10 & 20	1.1	1.25	1.4	1dB @ 500 MHz	0.2	0.3	0.5	0.75	1
					DC-100	100-300	300-500						
MDC2718B-22 (1)	DC-500	75	0 TO 65 dB 1dB Steps	1, 2, 4, 8, 10, 20 & 20	1.1	1.2	1.3	1dB @ 500 MHz	0.3	0.5	0.8	N/A	1
MDC2718B-23 (1)	DC-500	75	0 TO 45.5dB 0.5dB Steps	0.5, 1, 2, 4, 8, 10 & 20	1.1	1.2	1.3	1dB @ 500 MHz	0.2	0.3	0.5	N/A	1

NOTES: (1) BNC Female connectors are standard. Change "B" to "F" for F Female connectors.
Operating Temperature Range is -20°C to +85°C.

COAXIAL ACCESSORIES - RESISTIVE TERMINATIONS - CAPS

The accessories shown below are typical of the most popular types of Terminators and Dust Caps. In addition, MIDISCO has similar items with UHF, HN, C, SMB, SMC and many other types of connector configurations. By adding the suffix "-C" a bead chain may be specified. The user should also be aware of the precision types of Coaxial Terminations and Shorts which may be found in other sections of this catalog.

FEATURES

- Sturdy Construction
- All Applicable Mil-Specs
- Special Impedances Available
- Other Connector Types Available
- With or Without Bead Chains
- Tarnish Resistant
- Rated @ 500VRMS (as applicable)
- Delivery from stock

MODEL	CONNECTOR	DESCRIPTION
MDC1026M-B-(ohms)	BNC Male	50, 75, 93, 100 or 600 ohm Resistive Terminations 1%, ½ watt
MDC1027M-B	BNC Male	Male Dust Cap-Non Shorting for protection of BNC Females
MDC1027F-B	BNC Female	Female Dust Cap-Non Shorting for protection of BNC Males
MDC1026M-T-(ohms)	TNC Male	50, 75, 93, 100 or 600 ohm Resistive Termination 1%, ½ watt
MDC1027M-T	TNC Male	Male Dust Cap-Non Shorting for protection of TNC Females
MDC1027F-T	TNC Female	Female Dust Cap-Non Shorting for protection of TNC Males
MDC1026M-N-(ohms)	N Male	50, 75, 93, 100 or 600 ohm Resistive Termination 1%, ½ watt
MDC1027M-N	N Male	Male Dust Cap-Non Shorting for protection of N Females
MDC1027F-N	N Female	Female Dust Cap-Non Shorting for protection of N Males
MDC1027M-S	SMA Male	Male Dust Cap-Non Shorting for protection of SMA Females
MDC1027F-S	SMA Female	Female Dust Cap-Non Shorting for protection of SMA Males

NOTES: Suffix "-C" for a Bead Chain
SMA accessories are Passivated Stainless Steel; all other are Brass with Bright Alloy Finish.

COAXIAL TERMINATIONS

TYPE SMA – SSMA – 2.4mm – 7mm

MIDISCO high precision coaxial terminations were designed for broad frequency coverage at reasonable cost. Each model meets the applicable interface parameters of MIL-C-39012. A sufficient selection is offered to permit the user to choose the correct model for the application considering VSWR, power and size versus cost.

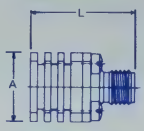
The "Q" model is actually a snap-on SMA type termination for laboratory or system use, that will snap on to any SMA female connector with excellent detent characteristics. The MDC1075QC (with bead chain) is very useful on front panels where it must be removed repeatedly. The quick-disconnect SMA termination finds great use in laboratory testing including phase matching.

Higher power terminations are available. The models shown here are in stock.

MALE

MDC1109M
MDC1224M
MDC1075
MDC1075H
MDC1091M
MDC1091MX
MDC1256M

FEMALE

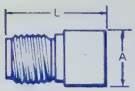


MDC1090F
MDC1154SF

FEATURES

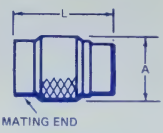
- Connectors per MIL-C-39012
- Constructed per all applicable MIL-Specs
- Low VSWR
- DC up to 50 GHz
- Small size
- Lightweight
- Operating temperature −55°C to +125°C
- 50 ohms impedance
- RF leakage 90 dB min
- Snap on/off SMA type available - MDC1075Q
- Quick disconnect (MDC1075Q) - 500 cycle durability
- Most available with bead chain (Suffix "-C")
- Delivery from stock

FEMALE



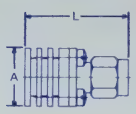
MDC1076
MDC1109F
MDC1076H
MDC1256F
MDC1224F

MALE

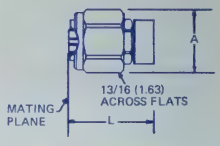


MDC1075Q

MALE



MDC1090M
MDC1090MX
MDC1154SM



MDC1107
MDC1107X

MODEL NUMBER	CONNECTOR TYPE	POWER @ 25°C AVG. (W)	POWER @ 25°C PEAK (KW)	VSWR (max) @ FREQUENCY (GHz) DC-4	4-8	8-12	12-18	18-26	26-Above	L (in) (max)	A (in) (ref)	MATERIAL & FINISH	WEIGHT (oz)
MDC1075	SMA Male	1	1.0	1.05	1.10	1.15	1.20	1.35	1.45 to 30 GHz	0.55	0.31 dia.	Stainless Steel Passivated	0.12
MDC1075H		2	1.5				1.25			0.65			0.15
MDC1091MX		1	1.0	1.03	1.04	1.08	1.15			0.33			0.08
MDC1091M				1.05	1.06	1.09				0.35		Stainless Steel Gold Plated	0.09
MDC1090M		5	2.0	1.20	1.30	1.40				0.90	0.50 sq.	Stainless Steel Passivated Coupling Nut Black Anodized Aluminum Body	0.90
MDC1090MX			4.0	1.15	1.15	1.25	1.25			1.35	0.75 dia.		1.10
MDC1256M			2.0	1.10		1.20	1.35			1.50	0.75 dia.		0.43
MDC1154SM		15								2.00	1.25 dia.		0.90
MDC1075Q	SMA Male Snap-On	1	1.0	1.08	1.13	1.17	1.23			0.55	0.38 dia.	Beryllium Copper Gold Plated	0.13
MDC1076	SMA Female	1		1.05	1.10	1.15	1.20	1.35		0.52	0.31 dia.	Stainless Steel Passivated	0.08
MDC1076H		2		1.08	1.12	1.20	1.30	1.40		0.44	0.28 hex		0.06
MDC1090F		5	2.0	1.20	1.30	1.40				0.76	0.50 sq.	Stainless Steel Passivated Coupling Nut Black Anodized Aluminum Body	0.89
MDC1256F				1.10	1.15	1.20	1.35			1.30	0.50 dia.		0.43
MDC1154SF		15								1.90	1.25 dia.		0.90
MDC1109M	SSMA Male	0.5	1.0	1.05	1.10	1.12	1.15	1.35		0.45	0.25 hex	Stainless Steel Passivated	0.07
MDC1109F	SSMA Female									0.43	0.31 dia.		0.06
MDC1224M	2.4 mm Male	0.5	1.0	1.05	1.10	1.12	1.15	1.35	1.50 to 50 GHz	0.50	0.31 hex	Stainless Steel Coupling Nut Tellurium Copper Nickle Plated Body	0.09
MDC1224F	2.4 mm Female									0.49	0.31 dia.		0.08
MDC1107	7 mm	2				1.10	1.25			1.50	0.82 dia.	Stainless Steel Passivated	1.50
MDC1107X				1.03	1.03	1.04	1.06						

For additional specifications, see 7mm section of catalog or MIL-C-39012 as applicable or request complete data sheet.
Some high precision types are specified at 9 in-lbs. torque.
For a bead chain, add suffix "-C" to Model Number. Example: MDC1075-C.
Other finishes are available, please consult MIDISCO.
Engagement force for MDC1075Q or MDC1075Q-C is 10 lbs axial.

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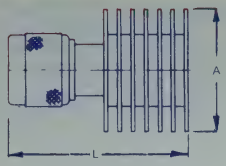
COAXIAL TERMINATIONS

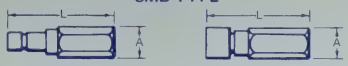
TYPE N – TNC – BNC – SMB – SMC

MIDISCO coaxial terminations in the series shown below were designed for optimum performance in the smallest package possible. The parameters for cost consideration when making a selection include connector type, frequency range, power handling and reflection coefficient (VSWR). The range of models shown is sufficient for laboratory & systems applications. Construction is in accordance with all applicable military specifications and the connector interface is per MIL-C-39012. Some of the stainless steel "X" models shown are available in brass, indicated by dropping the "X". Most models shown can be obtained with a bead chain (add suffix "-C") for panel mounting, etc. Higher power and models selected for narrow frequency applications may be ordered; the models shown are in stock.



MDC1103 SERIES
MDC1154 SERIES

SMB TYPE



SNAP-ON
MDC1001BM

SNAP-ON
MDC1001BF

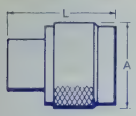
SMC TYPE

10-32 THREAD
MDC1001CM

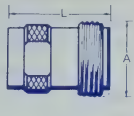
10-32 THREAD
MDC1001CF

FEATURES

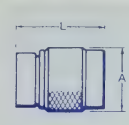
- Construction per all applicable MIL-Specs
- Interface per MIL-C-39012
- Low VSWR
- Small size
- DC to 18 GHz
- Lightweight
- 50 ohms (other impedance available)
- Operating temperature −55°C to +125°C
- RF leakage 90 dB minimum
- Some precision models in brass or stainless
- Higher power models available
- Most available with bead chain (Suffix "-C")
- SMB (snap on) and SMC terminations shown
- Delivery from stock



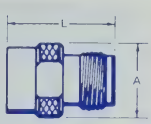
TYPE N MALE
MDC1042M
MDC1042MX
MDC1024NM



TYPE N FEMALE
MDC1042F
MDC1042FX

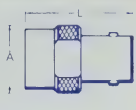


TYPE TNC MALE
MDC1044M
MDC1044MX
MDC1024TM



TYPE TNC FEMALE
MDC1044F
MDC1044FX

TYPE BNC MALE
MDC1043M



TYPE BNC FEMALE
MDC1043F

MODEL NUMBER	CONNECTOR TYPE	POWER @ 25°C AVG. (W)	POWER @ 25°C PEAK (KW)	VSWR (max) @ FREQUENCY (GHz) DC-4	4-8	8-12	12-18	L (in) (max)	A Dia. (in)	MATERIAL & FINISH	WEIGHT (oz.)
MDC1042M	N Male	2	1.0	1.10	1.10	1.15	1.40	0.98	0.80	Brass with Bright Alloy	1.43
MDC1042MX											
MDC1024NM							1.20	1.50		Stainless Steel Passivated	1.57
MDC1103NX		5	2.0		1.15	1.20	1.30	1.85	1.02	Stainless Steel Connector with Black Anodized	1.79
MDC1154NM		15	4.0	1.15	1.20	1.25		2.50	1.25	Aluminum Body	3.37
MDC1154NF		15	2.0	1.15	1.20	1.25	1.30	2.50	1.25	Same As Above	3.30
MDC1042F	N Female	2	1.0	1.10	1.10	1.15		0.98	0.65	Brass with Bright Alloy	1.30
MDC1042FX							1.40				
MDC1044M	TNC Male	2	1.0	1.10	1.10	1.15		0.82	0.60	Brass with Bright Alloy	1.03
MDC1044MX							1.40				
MDC1024TM							1.20	1.50		Stainless Steel Passivated	1.40
MDC1103TX		5	2.0	1.15	1.20	1.25	1.30	1.80	1.02	Stainless Steel Connector with Black Anodized	1.51
MDC1154TM		15						2.30	1.38	Aluminum Body	2.82
MDC1154TF		15	2.0	1.15	1.20	1.25	1.30	2.30	1.38	Same As Above	2.74
MDC1044F	TNC Female	2	1.0	1.10	1.10	1.15		0.88	0.56	Brass with Bright Alloy	0.96
MDC1044FX							1.40				
MDC1043M	BNC Male	2	1.0	1.10	1.15			0.83	0.56	Brass with Bright Alloy	1.02
MDC1103BX		5	2.0	1.15	1.25			1.65	1.02	Stainless Steel Connector with Black Anodized	1.93
MDC1154BM		15						2.10	1.25	Aluminum Body	2.30
MDC1154BF	BNC Female	15	2.0	1.15	1.25			2.15	1.25	Same As Above	2.15
MDC1043F		2	1.0	1.10	1.15			0.88	0.57	Brass with Bright Alloy	0.90
MDC1001BM	SMB Male	0.5	0.2	1.20	1.35			0.85 (1)	0.23	Brass with Bright Alloy	0.08
MDC1001BF	SMB Female										
MDC1001CM	SMC Male				1.30						
MDC1001CF	SMC Female										

(1) Smaller Models are available

MDC1103BX, 1103NX and 1103TX available with nickle plated brass connectors; drop "X" from part number.

For bead chain, add suffix "-C" to Model Number. Example: MDC1042M-C.

The power ratings shown are at +25°C, although some will provide the same performance up to 75°C.

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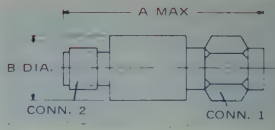
D.C. BLOCK

0.10 TO 18 GHz TYPE N, TNC, SMA & 7 mm

MIDISCO MDC1181 inside blocks have capacitance in series with the center conductor which prevents the flow of DC current through the center conductor. MDC1182 inside/outside DC blocks has capacitance in series with both the outer and inner conductors. This prevents the flow of DC current and suppresses ground or audio interference signals in both conductors while permitting RF power to flow uninterrupted. The insertion loss over the frequency range for all SMA models is 0.5 dB maximum; the other models are slightly less. At 1 KHz all models have an insertion loss greater than 65 dB. All models are in stock.



PART NUMBER	TYPE	VSWR at F (GHz)				CONNECTORS		DIMENSIONS (REF.)	
		0.1-8	.25-8	8-12.4	12.4-18	1	2	A	B
MDC1181	INSIDE		1.2	1.25	1.35	SMA(M)	SMA(F)	0.88	0.28
MDC1181M	INSIDE		1.2	1.25	1.35	SMA(M)	SMA(M)	0.98	0.28
MDC1181F	INSIDE		1.2	1.25	1.35	SMA(F)	SMA(F)	0.78	0.28
MDC1182-S12	IN/OUT	1.2		1.25		SMA(M)	SMA(F)	2.30	0.85
MDC1182-S18	IN/OUT	1.2		1.25	1.35	SMA(M)	SMA(F)	2.30	0.85
MDC1182A-S18	IN/OUT	1.2		1.25	1.35	SMA(M)	SMA(F)	1.10	0.50
MDC1182-N12	IN/OUT	1.2		1.25		N(M)	N(F)	2.75	1.00
MDC1182-N18	IN/OUT	1.2		1.25	1.35	N(M)	N(F)	2.75	1.00
MDC1182-T18	IN/OUT	1.2		1.25	1.35	TNC(M)	TNC (F)	2.10	0.80
MDC1182-712	IN/OUT	1.2		1.25		7 MM	7 MM	3.25	1.00
MDC1182-718	IN/OUT	1.2		1.25	1.35	7 MM	7 MM	3.25	1.00

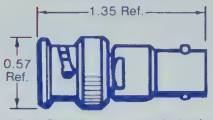
FEATURES

- 0.10 to 18 GHz
- Connectors per MIL-C-39012
- Stainless steel
- Maximum loss at 18 GHz: 0.50 dB
- Maximum VSWR at 18 GHz: 1.35
- Impedance: 50 ohms
- Insertion loss at 1 KHz: 65 dB
- Voltage (main line): 200 volts
- Temperature (operating)
  −55°C to +125°C (inside)
  −20°C to +100°C (inside/outside)
- Delivery from stock

FEED-THRU TERMINATIONS TYPE BNC & SMA

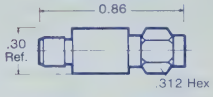
MIDISCO Coaxial Feed - Thru Termination Model MDC1079 is ideal for terminating pulse microwave or UHF instruments in their own characteristic impedance. Each unit can be supplied with either a BNC male and female connector on a brass body (MDC1079 B) or SMA male and female on a stainless steel body (MDC 1079 S). To maintain a good laboratory appearance, each SMA unit is passivated and each BNC unit has a bright alloy finish.

MDC1079 B-50



BNC Plug BNC Jack

MDC1079S



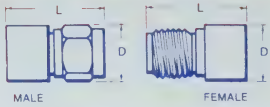
SMA Jack SMA Plug

FEATURES

- Impedance 50 ohms ±1%
- MDC1079B available in 75, 93 ohms and other impedances.
- Average power 2 watts.
- Connectors: BNC male/female
  Finish: Bright alloy/ Material: Brass
  or
- Connectors: SMA male/female
  Finish: Passivated
  Material: Stainless steel
- Other connector types available
- Frequency DC-500 MHz
- VSWR 1.1 (DC-250 MHz)
- (Max.) 1.2 (250-500 MHz)
- Delivery from stock

COAXIAL SHORTS TYPE SMA - N - TNC - BNC

MIDISCO coaxial fixed shorts are used as phase references when calibrating equipment. At exactly one-half wavelength from the connection point the maximum amplitude appears. Each model is designed to produce a reflection coefficient that is approximately equal to one. They are also available with bead chains and delivery is from stock.



MALE FEMALE

MODEL NUMBER	TYPE	D (REF.)	L (REF.)	MATERIAL
MDC1025M-S	SMA Male	0.31	0.33	
MDC1025F-S	SMA Female	0.31	0.48	Stainless Steel
MDC1025M-N	N Male	0.78	0.69	
MDC1025MX-T	TNC Male	0.59	0.70	
MDC1025M-T	TNC Male	0.59	0.70	
MDC1025F-T	TNC Female	0.50	0.58	Brass with Bright
MDC1025M-N	N Male	0.78	0.69	Alloy
MDC1025F-N	N Female	0.78	0.75	Finish
MDC1025M-B	BNC Male	0.59	0.70	
MDC1025F-B	BNC Female	0.50	0.58	

NOTE: With Bead Chain (Suffix-C)

FEATURES

- Stainless steel passivated or Brass with Bright alloy finish
- Short lengths
- Available with bead chains (suffix-C)
- Connectors per MIL-C-39012
- SMA-N-TNC-BNC
- Plugs or Jacks
- Delivery from stock

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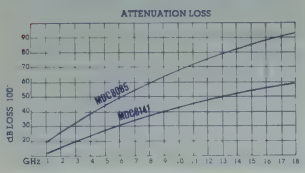
ULTRA-FLEX

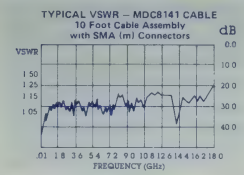
FOR HAND FORMED SEMI-FLEXIBLE CABLE ASSEMBLIES

MIDISCO ULTRA-FLEX coaxial cable and assemblies eliminate the need for tooling normally required to form semi-rigid assemblies. This cable series is extremely flexible, can be shaped and reshaped by hand, and supplied with most of the standard connector types. The 100% shielded cable has a copper-tin composition outer jacket, teflon insulator and a silver coated copper over steel center conductor. Both 50 ohm versions, the 0.085 diameter (MDC8085) and 0.141 diameter (MDC8141) types have excellent electrical performance to 18 GHz and above at temperatures to 200°C. A 75 ohm version (MDC8084) is also available.

These assemblies are perfect for prototype and production applications, especially when there are close quarters that don't permit pre-bending. The low loss, good VSWR ultra-flexibility and wide connector selection make them useful in the test laboratory. Connectors are also available separately. Delivery is one week.

TYPICAL PERFORMANCE





FEATURES

- No bending tools required
- Ultra-flexibility
- 100% shielded
- Many connector possibilities
- Low insertion loss
- Cable spools & cable assemblies available to 100 feet
- Perfect for prototypes
- Excellent for laboratory
- May be purchased without connectors
- Dielectric material: Teflon (TFE)
- Outer jacket: Silver coated copper covered steel
- Shield: Tin filled copper braid, 100% coverage
- Velocity of propogation: 70% nominal
- Delivery one week (or less)

Insert Cable Type chosen into part number formula: Connector A - Cable - Connector B - length (inches). EXAMPLE: SM-8085-BF-27 is a 27 inch assembly with an SMA male and BNC female using MDC8085 cable. For further information, please contact MIDISCO.

Cable Type	Impedance Ohms (Nom)	Cable O.D.	Dielectric O.D.	Shield Ohms/K'	Conductor O.D.	Capacitance pF/ft (nom)	Attenuation (loss) @ Freq. (mHz) dB/100 ft. 50	100	200	400	700	1000	4000	7000	10000	18000	Bend Radius min.	suggstd
MDC8141	50	0.141	0.118	4.5	0.0365	29.3	2.4	3.5	5.0	7.6	10.0	13.0	30.0	41.0	50.0	73.0	.500	.750
MDC8085	50	0.083	0.064	10.2	0.0201	29.3	4.5	6.5	9.2	13.0	17.0	22.0	44.0	58.0	70.0	105.0	.125	.250
MDC8084	75	0.084	0.065	10.2	0.0113	19.3	4.5	6.6	10.0	15.0	21.0	26.0	60.0	82.0	110.0	——	.125	.250

CONNECTORS – SEMI-RIGID, ULTRA-FLEX & SNAKE

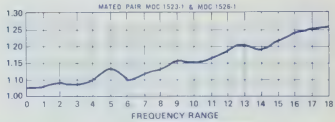
TYPE N & SMA

The MIDISCO cable assembly department designed two versatile, very small SMA plugs, model MDC1141S for 0.141 dia. (RG402) and MDC1085S for 0.085 dia. (RG405) semi-rigid cable. Each are small enough to allow for tight bends, have retractable coupling nuts, by means of snap off "C" rings, that eliminate blind mating and are self facing and assemble easily and quickly. MDC1141S is also designed to be used with Rebendable SNAKE MDC5141 and Ultra-Flex MDC8141. MDC1085S, in addition to standard semi-rigid cable, is for use with SNAKE MDC5085 and Ultra-Flex MDC8085. Both types are assembled to the cable with a single soldering operation. Standard versions have a gold plated body and stainless finish (passivated) coupling nut. For gold plating all over, drop the "S" suffix (example MDC1141).

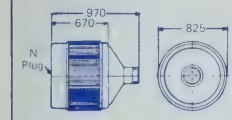
MIDISCO's precision N connectors for semi-rigid, and similar type coaxial cable, use mode-free design techniques that provide excellent VSWR to 18 GHz. Straight, bulkhead and panel jacks and straight plugs accommodate 0.085, 0.141 and 0.250 diameter semi-rigid cable and the complementary SNAKE and Ultra-Flex coaxial cable. All are easy to assemble, direct solder types.

FEATURES

- Smallest available SMA
- Designed per MIL-C-39012
- Stainless construction
- Passivated finish except for gold plated soldering area
- Retractable SMA coupling nut
- Direct solder
- Easy to assemble
- Useable on rebendable SNAKE
- Useable on Ultra-Flex
- Delivery from stock

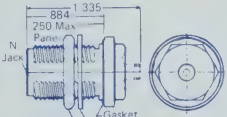


STRAIGHT CABLE PLUG DIRECT SOLDER



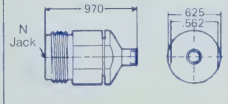
MDC1523 - (*)

BULKHEAD FEEDTHROUGH JACK



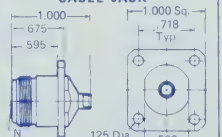
MDC1526 - (*)

STRAIGHT CABLE JACK DIRECT SOLDER



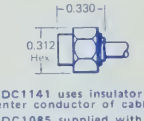
MDC1519 - (*)

FLANGE MOUNT CABLE JACK



MDC1524 - (*)

SMA PLUG DIRECT SOLDER



MDC1141 uses insulator and center conductor of cable.
MDC1085 supplied with insulator and contact.

MDC1085S MDC1141S

*SUFFIX: (-1) for 0.141 (RG 402) Semi-Rigid Cable (-3) for 0.250 (RG 401) Semi-Rigid Cable
(N ONLY) (-2) for 0.085 (RG405) Semi-Rigid Cable (-4) for RG 174, 188, 316 flexible cable (slightly different dimensions and assembly)

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ADAPTO-CABLE KITS

SMA – SMB – SMC – N – TNC – BNC

MIDISCO ADAPTO-CABLE KITS are similar in nature to the ADAPTO-KITS which provide the user with coaxial adapters for complete series adaptation at a more reasonable cost than ordering separately. The ADAPTO-CABLE KITS consist of an assortment of eight cable assemblies with various popular combinations of connectors that are commonly found in the field or laboratory. Each Kit may be purchased in one of several coaxial cable types and cable lengths as shown. When specifying, add the cable series and the length desired to the part number for each kit type you are ordering.

Bulkhead (hex-nut) or panel (flange) mount connectors are available. If the semi-rigid types are to be formed for system applications or used in a laboratory environment, MDC5141 (0.141 dia) or MDC5085 (0.085 dia) rebendable semi-rigid cable, shown in this catalogue, or the new Ultra-Flex types should be specified instead of RG402 or RG405 respectively.

Standard Kit lengths are shown, however, other lengths and cable types can be obtained as a kit or as individual cable assemblies. Delivery is normally one week.

FEATURES

- Permits connections without adapters
- Available in various cable types
- Kits may be ordered with different lengths
- Re-bendable semi rigid types
- Less expensive than if purchased individually
- High quality connectors per MIL-C-39012
- Cable per MIL-C-17 as applicable
- Quality assembly techniques
- Bulkhead or Panel (flange) connectors available
- Right angle connectors when required
- Special Kits or individual assemblies obtainable
- FAST delivery - usually one week

CKA - (CABLE SERIES) - L	
BNC MALE	BNC MALE
BNC MALE	BNC FEMALE
BNC MALE	N MALE
BNC MALE	TNC MALE
BNC MALE	SMA MALE
BNC MALE	SMB MALE
BNC MALE	SMC MALE
BNC FEMALE	BNC FEMALE

CKB - (CABLE SERIES) - L	
N MALE	N MALE
N MALE	N FEMALE
N MALE	BNC MALE
N MALE	TNC MALE
N MALE	SMA MALE
N MALE	SMB MALE
N MALE	SMC MALE
N FEMALE	N FEMALE

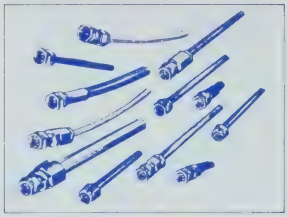
CKC - (CABLE SERIES) - L	
TNC MALE	TNC MALE
TNC MALE	TNC FEMALE
TNC MALE	N MALE
TNC MALE	BNC MALE
TNC MALE	SMA MALE
TNC MALE	SMB MALE
TNC MALE	SMC MALE
TNC FEMALE	TNC FEMALE

CKE - (CABLE SERIES) - L	
SMB MALE	SMB MALE
SMB MALE	SMB FEMALE
SMC MALE	SMC MALE
SMC MALE	SMC FEMALE
SMB MALE	SMC FEMALE
SMC MALE	SMB FEMALE
SMC FEMALE	SMC FEMALE
SMB FEMALE	SMB FEMALE

CKD - (CABLE SERIES) - L	
SMA MALE	SMA MALE
SMA MALE	SMA FEMALE
SMA MALE	N MALE
SMA MALE	BNC MALE
SMA MALE	TNC MALE
SMA MALE	SMB MALE
SMA MALE	SMC MALE
SMA FEMALE	SMA FEMALE

CKF - (CABLE SERIES) - L	
N MALE	N MALE
N MALE	N FEMALE
N MALE	BNC MALE
N MALE	BNC FEMALE
BNC MALE	BNC MALE
BNC MALE	BNC FEMALE
BNC MALE	TNC MALE
TNC MALE	TNC MALE

CKG - (CABLE SERIES) - L	
SMA MALE	SMA MALE
SMA MALE	SMA FEMALE
SMA MALE	SMB MALE
SMA MALE	SMB FEMALE
SMB MALE	SMB FEMALE
SMB MALE	SMB MALE
SMB FEMALE	SMB FEMALE
SMA FEMALE	SMA FEMALE



SMA PLUGS

CKH - (CABLE SERIES) - L	
SMA MALE	SMA MALE
SMA MALE	SMA FEMALE
SMA MALE	SMC MALE
SMA MALE	SMC FEMALE
SMC MALE	SMC FEMALE
SMC MALE	SMC MALE
SMC FEMALE	SMC FEMALE
SMA FEMALE	SMA FEMALE

NOTE: Please insert the desired cable series for each ADAPTO-CABLE KIT ordered into the Kit Model Number. Also select the length you wish each cable to be and substitute that length for "L" in the Kit Model Number. EXAMPLE: CKC-58-48 is Kit Model CKC; all cables use RG58 cable and each one is 48 inches overall length.

CABLE SERIES: RG55, 58, 59, 62, 141, 142, 174, 178, 180, 188, 195, 196, 214, 223, 316, 400, 402, 405, MDC5085, MDC5153, MDC5141, and Ultra-Flex series MDC8084, MDC8085 and MDC8141. Please note that not every cable series is available in every kit model due to connector restrictions and MIDISCO may request to substitute a similar cable type where necessary for that connector only.

MIDISCO

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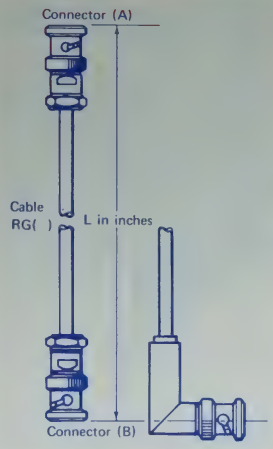
COAXIAL CABLE ASSEMBLIES
TEST & PRODUCTION CABLES & CUSTOM ADAPTERS

MIDISCO cable assemblies and custom adapters are manufactured from drawings, sketches and even wire coat hangers that are bent into shape and sent to our quick reaction shop. All connector types and coaxial cable sizes are stocked for fast assembly turnaround. Data can be supplied up to 26.5 GHz and completed assemblies can be delivered in three days.

Systems design may sometimes dictate the need for a different series connector at each end of the assembly, a right angle or perhaps a panel (flange) or bulkhead (hex-nut) type. The connector and cable types shown here are samples of what is available with quick delivery. They can be combined for a standard MIDISCO part number. Construction is in accordance with applicable military specifications. For prototype assemblies, we suggest the Ultra-Flex assemblies or the full mil-spec SNAKE. See the ADAPTO-CABLE section for complete laboratory cable kits.



FEATURES

- MIL Spec cable and connectors where applicable
- Construction from sketch, print, black box or bent wire
- Precision bending & assembly techniques
- Reformable semi-rigid Mil spec SNAKE at no extra charge
- Ultra-Flex assemblies
- All connector types including SMA Phase Adjustable
- Flexible, semi-rigid, Snake or Twist cable types
- Custom made inexpensive hard to find adapters
- Panel (flange) or bulkhead (hex-nut) connectors
- Right angle or straight connectors
- Printed data available to 26.5 GHz
- Three day delivery of any configuration

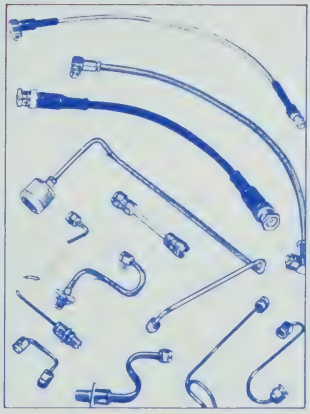
Connector Types = Connector P/N		Connector Types = Connector P/N		Cable Types
N Male	NM	SMA Male	SM	Cable types RG55, RG58, RG59, RG62, RG141, RG142, RG174, RG188, RG214, RG223, RG316, Midisco Snake and Twist, Ultra-Flex MDC8084, MDC8085, MDC8141, SNAKE MDC5085, MDC5141, 0.085 and 0.141 Semi-Rigid. (RG405 and RG402 respectively), etc., etc.
N Female	NF	SMA Female	SF	
BNC Male	BM	SMB Male	SMBM	
BNC Female	BF	SMB Female	SMBF	
TNC Male	TM	SMC Male	SMCM	
TNC Female	TF	SMC Female	SMCF	
		UHF Male	UM	

MIDISCO part numbers= CONNECTOR (A) – RG ( ) – CONNECTOR (B) – LENGTH in inches
EXAMPLE: RNM - 58 - BF-36 is a 3-foot, RG58 Cable Assembly with a right angle Type N Male and a BNC Female
Prefix connector part number with P for panel mount, B for bulkhead and R for right angle.

CUSTOM SEMI-RIGID & FLEXIBLE ASSEMBLIES

The MIDISCO custom cable assembly department will manufacture custom coaxial cable configurations to your exact specifications. Semi-rigid and rebendable semi-rigid types are available from 0.047 diameter to 0.325 diameter.

Prototypes are available within three days, working from a sketch, outfitting a black box or from a bent wire coat hanger. Each assembly can be tested on our network analyzer to 26 GHz if required. Phase adjustable connectors are maintained in inventory to satisfy quick reaction phase match requirements.



FEATURES

- Construction from print, sketch, black box or bent wire for fast prototype
- Precision bending
- Quality tooling, assembly and bending techniques
- Fast delivery from stocked cable and connectors
- Phase Adjustable Connectors available (see MIDISCO models MDC1089-1, 2, 3)
- Testing to 26 GHz
- Prototype or production quantities

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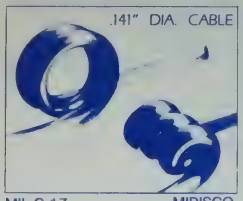
REFORMABLE SEMI-RIGID CABLE

MIDISCO SNAKE

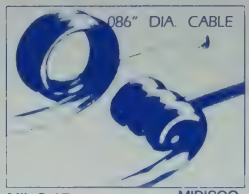
When semi-rigid cables need to be formed and re-formed before or after the connectors have been attached, the MIDISCO-SNAKE will provide the flexibility without a significant effect on insertion loss, VSWR or impedance.

These flexible semi-rigid cables are available in 0.034, 0.047 0.085, 0.141 and 0.250 diameter and feature a soft OFHC copper jacket and PTFE dielectric with silver-plated copper or silver-plated copper clad steel conductors. Tin-plated or silver-plated copper jackets and many connector types are also available.



MIL-C-17
2 Turns
.500" dia.

MIDISCO
SNAKE
3 Turns
.200" dia.



MIL-C-17
2 Turns
.250" dia.

MIDISCO
SNAKE
3 Turns
.100" dia.

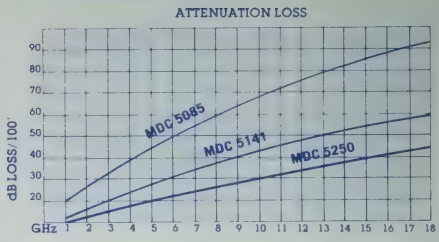
FEATURES

- Tighter bend radii than conventional cable
- Easier alignment of connector interface
- Better phase stability with temperature and flexing
- Coils to 100 feet or straight 5 foot lengths
- Fine performance with solder or crimp connectors
- Meets all MIL-C-17 requirements
- Delivery from stock

SPECIFICATIONS

Part Number	Impedance	Cable O.D.	Dielectric O.D.	Conductor O.D.	Min. Bend Radius	Corona Extnc. Vltg.	Wgt./ 100 ft.
MDC5034	50 ± 1 ohm	0.034 Max.	0.026 Nom.	0.0080 Nom.	0.050"	0.75 Kv60HzRMS	0.26
MDC5047	50 ± 1 ohm	0.047 Max.	0.037 Nom.	0.0113 Nom.	0.095"	1.00 Kv60HzRMS	0.45
MDC5085	50 ± 1 ohm	0.086 Max.	0.066 Nom.	0.0201 Nom.	0.137"	1.50 Kv60HzRMS	1.5
MDC5141	50 ± 1 ohm	0.141 Max.	0.117 Nom.	0.0362 Nom.	0.237"	1.90 Kv60HzRMS	3.5
MDC5250	50 ± 1 ohm	0.250 Max.	0.209 Nom.	0.0641 Nom.	0.312"	3.00 Kv60HzRMS	10.5

PERFORMANCE



ORDERING INFORMATION

When ordering, complete the part numbers above by adding the following suffix: Suffix "C" for a silver plated copper conductor. Suffix "S" for a silver plated copper clad steel conductor. The further addition of "TP" or "SP" will signify whether the outer conductor is to be either tin plated or silver plated.

Available in straight lengths or coils.

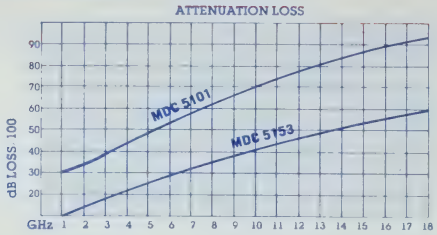
ULTRA LOW-LOSS FLEXIBLE CABLE

MIDISCO TWIST

MIDISCO-TWIST Coaxial Cable can twist, flex and bend while retaining low insertion loss characteristics through the higher frequencies. Low noise generation and excellent phase stability over wide ranges of temperature and with repeated flexing give these cables a broad range of applications through a minimum of 18 GHz.

Mechanically, silver-plated copper OFHC wires running parallel to each other make up the shield, while the jacket and dielectric core are fused multi-ply PTFE laminates. Two types of conductors are also available, silver-plated copper and silver-plated copper clad steel. Midisco-Twist cable assemblies are available with several series of connectors.

PERFORMANCE



FEATURES

- Excellent VSWR
- Lightweight
- Small size
- Very flexible
- Temperature stable— MIL-Std. 202, Method 107, 5 cycles, −65°C to 200°C
- Minimum flexing noise generated
- Low insertion loss
- −90 dB/ft. @ 18 GHz RF Leakage
- Delivery from stock

SPECIFICATIONS

Part Number	Impedance	Cable O.D.	Dielectric O.D.	Shield O.D.	Conductor O.D.	Min. Bend Radius	Corona Extnc. Vltg.	Wgt./ 100 ft.
MDC5101 C/S	50 ± 1 ohm	.101 ± .002"	.064" ± .001	.080 ± .002"	.020" ± .0005"	0.5"	2.2 Kv60HzRMS	1.15
MDC5153 C/S	50 ± 1 ohm	.153 ± .002"	.116" ± .001	.132 ± .001"	.036" ± .0005"	1.0"	2.5 Kv60HzRMS	2.80

ORDERING INFORMATION

When ordering, complete the part numbers above by adding the following suffix: Suffix "C" for a silver plated copper conductor. Suffix "S" for a silver plated copper clad steel conductor.

The cable is shipped on non-returnable spools in random lengths unless specific lengths are requested. Minimum order 25'. Samples for evaluation available if requested on company letterhead.

See cable assembly section for cable assembly ordering information.

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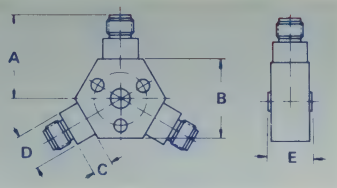
POWER DIVIDERS - RESISTIVE

MIDISCO broadband resistive power dividers have excellent stability over temperature and output power symmetry over frequency with a division of 6 dB from matched ports. Input and output is interchangeable and phase difference is nominally ±2° between output ports. SMA connectors are stainless steel, other connectors and the housing are brass, nickel plated. Calibrated data is available. Delivery on some models is from stock.



FEATURES

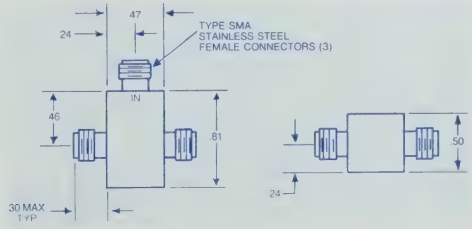
- Broadband
- Miniature and lightweight
- Other connectors optional
- Meets MIL-E-5400/MIL-STD-202
- Impedance: 50 ohms
- −55°C to +125°C
- 1 W-CW, 1 KW-PK

Model Number	Connectors			Max VSWR/Insertion Loss (dB)				Dimensions-typ. (inches)				
	Type	Male	Female	DC-8	8-12.4	12.4-18	18-26.5	A	B	C	D	E
MDC1191F3	SMA	0	3	1.25/6.5	1.25/7.0	1.60/7.5	1.70/8.5	0.80	0.75	0.20	0.35	0.42
MDC1191F2	SMA	1	2	1.25/6.5	1.25/7.0	1.60/7.5	1.70/8.5	0.85	0.65	0.20	0.35	0.42
MDC1191M3	SMA	3	0	1.25/6.5	1.25/7.0	1.60/7.5	1.70/8.5	1.00	0.75	0.20	0.35	0.42
MDC1192F3	SMA	0	3	1.25/6.5	1.25/7.0	1.60/7.5	____	0.80	0.75	0.20	0.35	0.42
MDC1192F2	SMA	1	2	1.25/6.5	1.25/7.0	1.60/7.5	____	0.85	0.75	0.20	0.35	0.42
MDC1192M3	SMA	3	0	1.25/6.5	1.25/7.0	1.60/7.5	____	1.00	0.65	0.20	0.35	0.42
MDC1193F3	TYPE N	0	3	DC-4GHz 1.35/6.5				1.20	1.25	0.30	0.63	0.67
MDC1194F3	BNC	0	3	DC-2GHz 1.25/6.2				1.40	1.25	0.30	0.50	0.67

* Insertion loss is specified as between input and one output arm.
This series of Midisco resistive power dividers are delta configured −3 resistors end to end in triangle tied to a common output.

HI PERFORMANCE - "T" CONFIGURATION (DC-18 GHz)

Model Number	Connectors	VSWR (max.)		Insertion Loss (dB)		Amplitude Balance (dB max.)		
		DC-10	10-18	DC-10 GHz	DC-18 GHz	DC-4	4-10	10-18
MDC2R06	SMA Female (3)	1.25	1.35	6 +1.20/−0.20	6 +1.50/−0	0.20	0.40	0.50
Input Power: 1 watt max.								



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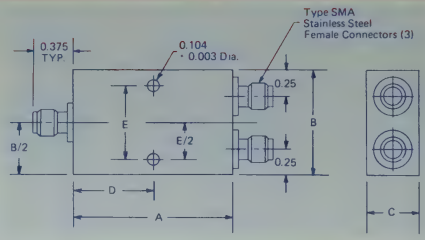
POWER DIVIDERS - ISOLATED IN PHASE 2 WAY

DC-26.5 GHz

MIDISCO miniature stripline power dividers provide high isolation in-phase division of input power between output ports. These low VSWR units are contained within precision machined housings that are designed to provide high RF shielding and eliminate unwanted RF modes.

Standard models have three SMA female connectors. Other frequency ranges, 4, 8 or 16 way configurations, and different connector types are available.

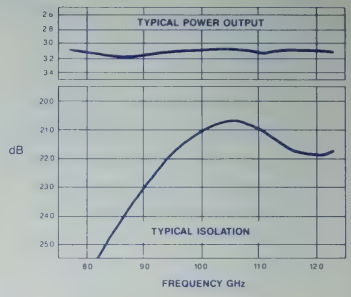


Outline	A	B	C	D	E	F
1	1.00	1.00	0.50	0.50	0.64	0.25
2	1.50	1.50	0.50	0.75	1.31	0.25
3	2.00	1.50	0.50	1.00	1.31	0.25
4	1.50	2.50	0.50	0.53	2.31	0.75
5	1.62	1.00	0.38	0.75	0.85	0.25

FEATURES

- Use as divider or combiner
- Low insertion loss & VSWR
- Flat frequency response
- Excellent phase and amplitude tracking
- High isolation
- Rf shielded
- Constructed to exceed MIL-E-5400 & MIL-E-16400
- Delivery from stock

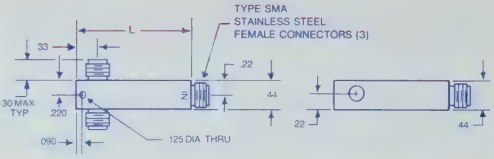
Model No.	Freq. Range (GHz)	Insertion Loss dB(max)	Amplitude Balance dB(max)	Phase Balance degrees (max)	VSWR (max) Input	VSWR (max) Output	Isolation	Input Power (watts) Load VSWR 1.2	Load VSWR 2.0	Load VSWR ∞	Outline
MDC2223	0.5-1	0.20	0.2	2.0	1.20	1.10	22	30	20	3	4
MDC2224	1-2	0.25	0.2	3.0	1.25	1.20	22	30	20	3	2
MDC2225	2-4	0.25	0.2	4.0	1.30	1.30	20	30	10	1	2
MDC2263	3-5	0.35	0.2	4.0	1.30	1.30	20	30	10	1	2
MDC2226	4-8	0.30	0.2	4.0	1.30	1.30	20	30	10	1	1
MDC2266	2-8	0.30	0.2	4.0	1.35	1.35	20	30	10	1	3
MDC2227	8-12.4	0.40	0.2	4.0	1.20	1.35	20	30	10	1	1
MDC2288	12-18	0.60	0.2	5.0	1.35	1.40	20	30	10	1	1
MDC2289	8-18	0.60	0.2	5.0	1.35	1.40	20	30	10	1	1
MDC2290	6-18	1.00	0.2	5.0	1.50	1.50	18	30	10	1	5
MDC2269	2-18	1.00	0.2	5.0	1.40	1.40	18	30	10	1	5



POWER DIVIDERS - ISOLATED IN PHASE 2 WAY

ULTRA BROADBAND "T" CONFIGURATION

MIDISCO Ultra-Broadband power dividers offer either 1-20 GHz or 2-26.5 GHz in a single package. Featuring high isolation and low insertion loss, both models are very small but ruggedly constructed. Both may also be used as combiners and have SMA female connectors.



FEATURES

- Very broadband in a single package
- Excellent phase balance
- Low cost
- Small size & weight
- High Isolation
- Delivery from stock

Model No.	Freq. Range (GHz)	Insertion Loss dB(max)	Amplitude Balance dB(max)	Phase Balance deg.(max)	VSWR Input	VSWR Output	Isolation (dB min)	Input Power (watts max)	Length (L) inches
MDC2P06	1-1.5	0.50	0.20	1	1.70:1	1.50:1	10	10	1.75
	1.5-2	0.50	0.20	1	1.60:1	1.40:1	15	10	1.75
	2-4	0.40	0.20	1	1.50:1	1.30:1	20	10	1.75
	4-8	0.50	0.20	1.5	150:1	1.40:1	17	10	1.75
	8-15	0.80	0.30	2	1.70:1	1.50:1	15	10	1.75
	15-16	0.80	0.30	3	1.70:1	1.60:1	15	10	1.75
	16-18	0.90	0.40	4	1.80:1	1.90:1	14	10	1.75
	18-20	1.10	0.40	4	2.00:1	2.00:1	7	10	1.75
MDC2P86	2-2.5	0.30	0.30	2	1.50:1	1.20:1	15	10	1.50
	2.5-20	1.00	0.40	4	1.30:1	1.30:1	20	10	1.50
	20-26.5	1.50	0.40	6	1.50:1	1.50:1	15	10	1.50

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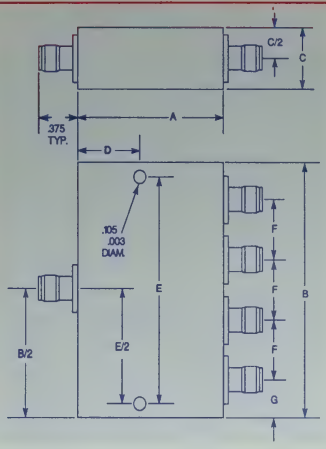
POWER DIVIDERS - ISOLATED IN-PHASE 4 WAY
0.5 - 18 GHz

MIDISCO miniature stripline power dividers provide high isolation in-phase division of input power between output ports. These low VSWR units are contained within precision machined housings that are designed to provide high RF shielding and eliminate unwanted RF modes.

Standard models have five SMA female connectors. Other frequency ranges, 2, 8 or 16 way configurations, and different connector types are available.



Outline	A	B	C	D	E	F	G
1	1.28	2.75	0.50	0.64	2.06	0.69	0.34
2	1.78	2.75	0.50	0.89	2.06	0.69	0.34
3	2.00	2.00	0.38	1.00	1.70	0.50	0.25
4	2.20	2.65	0.50	1.10	2.45	0.65	0.35
5	2.50	2.75	0.38	1.25	2.50	0.69	0.34
6	2.85	2.00	0.38	.95/1.9	1.70	0.50	0.25
7	3.40	3.60	0.50	1.70	3.40	1.00	0.30

Model No.	Freq. Range [GHz]	Insertion Loss [dBmax]	Amplitude Bal. [dBmax]	Phase Balance Degrees [Max.]	VSWR [max] Input	VSWR [max] Output	Isolation [dBmin]	Input Power [watts] Load VSWR 1.2	Load VSWR 2.0	Load VSWR ∞	Outline
MDC2423	0.5-1	0.40	0.4	4.0	1.30	1.20	20	30	20	3	7
MDC2424	1-2	0.60	0.3	5.0	1.60	1.35	20	30	20	3	5
MDC2425	2-4	0.60	0.6	6.0	1.50	1.50	18	30	10	1	4
MDC2463	3-5	0.50	0.3	4.0	1.35	1.30	20	30	10	1	2
MDC2426	4-8	0.40	0.3	4.0	1.40	1.25	20	30	10	1	3
MDC2427	7-12.4	1.00	0.6	6.0	1.50	1.50	16	30	10	1	1
MDC2488	12-18	1.50	0.6	6.0	1.50	1.50	18	30	10	1	3
MDC2489	8-18	1.50	0.6	6.0	1.50	1.50	18	30	10	1	3
MDC2469	2-18	2.00	0.6	6.0	1.60	1.50	15	30	10	1	6

FEATURES

- Low VSWR, insertion loss
- Flat frequency response
- Excellent phase and amplitude tracking
- Wide bandwidth
- Useable as combiner
- RF shielded
- Constructed to exceed MIL-E-5400 & MIL-E-16400
- Delivery from stock

HYBRIDS - 90° DROP-INS

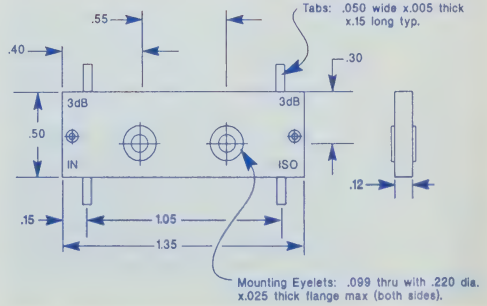
MIDISCO drop-in hybrid couplers have been designed to achieve high isolation and low VSWR in one of the smallest packages in the industry.

Typical applications for the 90° drop-in hybrid couplers are power dividers, combiners, mixers, paralleled amplifiers, non-reflective gain amplifiers, bi-phase modulators, digital phase shifters, antenna feed networks and switching networks.

Model No.	Freq. Range [GHz]	Insertion Loss [dBmax]	Amplitude Bal. [dBmax]	Phase Balance Degrees [Max.]	VSWR	Isolation [dBmin]
MDC7123D	0.5-1	0.30	±0.5	±1.5	1.20	20
MDC7124D	1-2	0.30	±0.5	±1.5	1.25	20

FEATURES

- High isolation
- Low VSWR
- Wide bandwidth
- Compact size
- Delivery from stock



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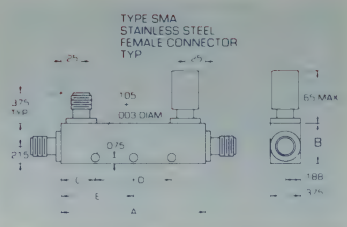
DIRECTIONAL COUPLERS

0.5 to 18 GHz (STANDARD BANDWIDTHS)

MIDISCO directional couplers of the MDC 6200 Series either meet or exceed the performance shown over the full frequency bandwidth. Each ultra-miniature unit is high quality stripline construction and has an operating temperature range of −55°C to +105°C. For broader bandwidths and multi-octave couplers, see MIDISCO Series 2000 and 4200. All units are available from stock.



OUTLINE	A	B	C	D	E
1	3.10	.50	.80	1.50	-
2	3.10	.55	.80	1.50	-
3	1.78	.50	.42	.94	-
4	1.78	.55	.42	.94	-
5	1.16	.50	.41	.34	-
6	1.16	.55	.41	.34	-
7	1.00	.50	-	-	.50
8	1.00	.55	-	-	.50
9	1.00	.60	-	-	.50

DIMENSIONS IN INCHES

FEATURES

- Ultra - miniature
- Stripline construction
- Full frequency bandwidth
- High directivity
- Low VSWR
- RF Shielded
- 105°C operating temperature
- Meets MIL environments
- Available from stock

MODEL NO.	FREQUENCY RANGE (GHz)	COUPLING* (dB)	FREQ. SENS. (dB)	INSERTION LOSS (dB)		DIREC-TIVITY (dB MIN.)	VSWR MAX.		POWER			OUTLINE DWG. NO.
				EXCL. CPLD PWR.	TRUE		PRIMARY LINE	SECON-DARY LINE	AVERAGE INCIDENT (W)	AVG. REFLD. (W)	PEAK (kW)	
MDC6223-6	0.5-1.0	6 ±1.00	±0.60	0.20	1.80	25	1.15	1.15	50	2	3	1
MDC6223-10	0.5-1.0	10 ±1.25	±0.75	0.20	0.80	25	1.10	1.10	50	5	3	1
MDC6223-20	0.5-1.0	20 ±1.25	±0.75	0.15	0.20	25	1.10	1.10	50	50	3	1
MDC6223-30	0.5-1.0	30 ±1.25	±0.75	0.15	0.20	25	1.10	1.10	50	50	3	2
MDC6224-6	1.0-2.0	6 ±1.00	±0.60	0.20	1.80	25	1.15	1.15	50	2	3	3
MDC6224-10	1.0-2.0	10 ±1.25	±0.75	0.20	0.80	25	1.10	1.10	50	5	3	3
MDC6224-20	1.0-2.0	20 ±1.25	±0.75	0.15	0.20	25	1.10	1.10	50	50	3	3
MDC6224-30	1.0-2.0	30 ±1.25	±0.75	0.15	0.20	25	1.10	1.10	50	50	3	4
MDC6225-6	2.0-4.0	6 ±1.00	±0.60	0.20	1.80	22	1.15	1.15	50	2	3	5
MDC6225-10	2.0-4.0	10 ±1.25	±0.75	0.20	0.80	22	1.15	1.15	50	5	3	5
MDC6225-20	2.0-4.0	20 ±1.25	±0.75	0.15	0.20	22	1.15	1.15	50	50	3	5
MDC6225-30	2.0-4.0	30 ±1.25	±0.75	0.15	0.20	22	1.15	1.15	50	50	3	6
MDC6266-6	2.6-5.2	6 ±1.00	±0.60	0.20	1.80	20	1.25	1.25	50	2	3	7
MDC6266-10	2.6-5.2	10 ±1.25	±0.75	0.20	0.80	20	1.25	1.25	50	5	3	7
MDC6266-20	2.6-5.2	20 ±1.25	±0.75	0.20	0.25	20	1.25	1.25	50	50	3	7
MDC6266-30	2.6-5.2	30 ±1.25	±0.75	0.20	0.20	20	1.25	1.25	50	50	3	8
MDC6226-6	4.0-8.0	6 ±1.00	±0.60	0.25	1.90	20	1.25	1.25	50	2	3	7
MDC6226-10	4.0-8.0	10 ±1.25	±0.75	0.25	0.90	20	1.25	1.25	50	5	3	7
MDC6226-20	4.0-8.0	20 ±1.25	±0.75	0.25	0.30	20	1.25	1.25	50	50	3	7
MDC6226-30	4.0-8.0	30 ±1.25	±0.75	0.25	0.25	20	1.25	1.25	50	50	3	8
MDC6227-6	7.0-12.4	6 ±1.00	±0.50	0.30	2.00	17	1.30	1.30	50	2	3	7
MDC6227-10	7.0-12.4	10 ±1.00	±0.50	0.30	1.00	17	1.30	1.30	50	5	3	7
MDC6227-20	7.0-12.4	20 ±1.00	±0.50	0.30	0.35	17	1.30	1.30	50	50	3	7
MDC6227-30	7.0-12.4	30 ±1.00	±0.50	0.30	0.30	17	1.30	1.30	50	50	3	8
MDC6288-6	7.5-16.0	6 ±1.10	±0.60	0.60	2.00	12	1.35	1.40	50	2	2	7
MDC6288-10	7.5-16.0	10 ±1.25	±0.75	0.60	1.00	12	1.35	1.40	50	5	2	7
MDC6288-20	7.5-16.0	20 ±1.25	±0.75	0.50	0.50	15	1.35	1.40	50	50	2	9
MDC6288-30	7.5-16.0	30 ±1.25	±0.75	0.50	0.50	15	1.35	1.40	50	50	2	9
MDC6228-6	12.4-18.0	6 ±1.00	±0.50	0.60	2.20	15	1.30	1.40	50	2	1	7
MDC6228-10	12.4-18.0	10 ±1.00	±0.50	0.60	1.20	15	1.30	1.40	50	5	1	7
MDC6228-20	12.4-18.0	20 ±1.00	±0.50	0.50	0.55	15	1.30	1.40	50	50	1	9
MDC6228-30	12.4-18.0	30 ±1.00	±0.50	0.50	0.50	15	1.30	1.40	50	50	1	9

*Includes Frequency Sensitivity.

Dimensions are in inches.

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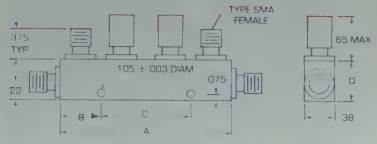
DIRECTIONAL COUPLERS

DUAL MINIATURE

MIDISCO Series MDC 3200 are stripline constructed dual directional couplers that have a variety of applications. These miniature devices, available in 10, 20 and 30 dB, have good directivity and tight coupling and frequency sensitivity. When used in a reflectometer application, the reflected and incident power can be simultaneously monitored. Where either incident or reflected power is monitored from two isolated ports, it is used as a dual in-line coupler. Special coupling values may be ordered. All standard values are available from stock.



FEATURES

- Etched teflon fiberglass stripline
- Miniature size
- High directivity
- MIL-SPEC construction
- Low VSWR
- RF shielded
- Resistance soldered SMA connectors
- Connectors per MIL-C-39012
- Delivery from stock

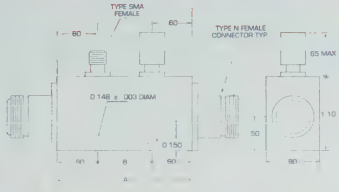
Model No.	Freq. Range (GHz)	Coupling* (dB)	Freq. Sensitivity (dB)	Insertion Loss (dB Max) True	Direc-tivity (dB min)	VSWR (max) Pri. Line	VSWR (max) Sec. Line	A	B	C	D
MDC 3223-21		10 ± 1.25		1.50				6.30	0.80	4.70	0.50
MDC 3223-22	0.5-1	20 ± 1.25	±0.80	0.50	22	1.15	1.10	6.30	0.80	4.70	0.50
MDC 3223-23		30 ± 1.25		0.40				6.30	0.80	4.70	0.55
MDC 3224-21		10 ± 1.25		1.50				3.66	0.42	2.82	0.50
MDC 3224-22	1-2	20 ± 1.25	±0.80	0.50	22	1.15	1.10	3.66	0.42	2.82	0.50
MDC 3224-23		30 ± 1.25		0.40				3.66	0.42	2.82	0.55
MDC 3225-21		10 ± 1.25		1.50				2.42	0.41	1.60	0.50
MDC 3225-22	2-4	20 ± 1.25	±0.80	0.50	20	1.20	1.15	2.42	0.41	1.60	0.50
MDC 3225-23		30 ± 1.25		0.40				2.42	0.41	1.60	0.55
MDC 3266-21		10 ± 1.25		1.50				2.10	0.50	1.10	0.50
MDC 3266-22	2.6-5.2	20 ± 1.25	±0.80	0.50	18	1.30	1.25	2.10	0.50	1.10	0.50
MDC 3266-23		30 ± 1.25		0.40				2.10	0.50	1.10	0.55
MDC 3226-21		10 ± 1.25		1.70				2.10	0.50	1.10	0.50
MDC 3226-22	4-8	20 ± 1.25	±0.80	0.50	18	1.35	1.25	2.10	0.50	1.10	0.50
MDC 3226-23		30 ± 1.25		0.40				2.10	0.50	1.10	0.55
MDC 3227-21		10 ± 1.25		1.90				2.10	0.50	1.10	0.50
MDC 3227-22	7-12.4	20 ± 1.25	±0.60	0.70	16	1.35	1.30	2.10	0.50	1.10	0.50
MDC 3227-23		30 ± 1.25		0.60				2.10	0.50	1.10	0.55
MDC 3228-21		10 ± 1.25		2.20				2.10	0.50	1.10	0.50
MDC 3228-22	8-16	20 ± 1.25	±0.80	1.00	15	1.40	1.40	2.10	0.50	1.10	0.60
MDC 3228-23		30 ± 1.25		1.00				2.10	0.50	1.10	0.60
MDC 3288-21		10 ± 1.25		2.20				2.10	0.50	1.10	0.50
MDC 3288-22	12.4-18	20 ± 1.25	±0.60	1.00	15	1.40	1.40	2.10	0.50	1.10	0.60
MDC 3288-23		30 ± 1.25		1.00				2.10	0.50	1.10	0.60

*Includes frequency sensitivity

Dimensions are in inches.

HIGH POWER/600 Watts CW 10kw pk

MIDISCO high power directional couplers, series MDC 2300 are available in any coupling value between 30dB and 50dB (substitute for "x" in part number). The frequency sensitivity is included in the coupling value. High power couplers find use in leveling circuits, VSWR protection and transmitter carrier power monitors. Primary line connectors are normally Type N female, with SMA female on the coupled port. Other connector types are available on special order. The couplers are flat with frequency and have good directivity.



FEATURES

- 600 watts CW
- Wide bandwidths
- Small size
- Flat with frequency
- RF shielded
- Custom coupling values (30-50dB)
- Fast delivery

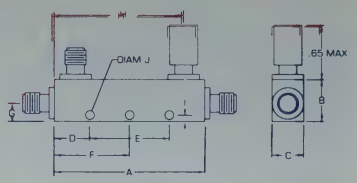
Model No.	Freq. Range (GHz)	Coupling* (dB)	Freq. Sensitivity (dB)	Insertion Loss (dB Max)	Direc-tivity (dB Min)	VSWR (max) Primary Line	A	B
MDC 2324-X	1-2	X ± 1.0	±0.75	0.2	22	1.15	3.50	2.30
MDC 2325-X	2-4	X ± 1.0	±0.75	0.2	22	1.15	2.50	1.30
MDC 2366-X	2.6-5.2	X ± 1.0	±0.75	0.2	20	1.20	2.50	1.30
MDC 2326-X	4-8	X ± 1.0	±0.75	0.2	20	1.20	2.00	0.80
MDC 3355-X	1.5-4.5	X ± 1.0	±0.60	0.2	18	1.20	3.50	2.30
MDC 3366-X	2-8	X ± 1.0	±0.60	0.2	17	1.25	3.00	1.80
MDC 2327-X	7-11	X ± 1.0	±0.60	0.2	16	1.30	2.00	0.80
MDC 3377-X	4-12	X ± 1.0	±0.60	0.2	15	1.30	2.50	1.30
MDC 2357-35	1-11	35 ± 1.5		0.2	15	1.30	3.85	2.65

*X to be selected by customer. Frequency sensitivity to be included in coupling. Primary line connectors Type N Female. Other connector types available on special order. Coupled port SMA Female. Dimensions are in inches.

DIRECTIONAL COUPLERS

MULTI - OCTAVE

MIDISCO Series MDC 2000 and MDC 4200 broadband and multi-octave directional couplers are designed for test and ECM equipment where more than standard frequency bandwidths are required. Each model is miniature, lightweight and able to meet stringent environmental requirements. Construction is stripline and designed to meet MIL-E-5400 & MIL-E-16400 environments. All units are available from stock.



OUTLINE	A	B	C	D	E	F	G	H	I	J
1	3.60	.53	.38	.5	2.60	—	.22	3.35	.075	.105
2	3.60	.60	.38	.5	2.60	—	.22	3.35	.075	.105
3	2.90	.68	.38	.45	2.00	—	.34	2.65	.15	.148
4	2.90	.60	.38	.45	2.00	—	.22	2.65	.075	.105
5	1.78	.68	.38	.45	.875	—	.34	1.53	.15	.148
6	1.78	.60	.38	.45	.875	—	.22	1.53	.075	.148
7	1.22	.54	.38	.42	.375	—	.22	.97	.075	.105
8	1.22	.60	.38	.42	.375	—	.22	.97	.075	.105
9	1.00	.50	.38	—	—	.50	.22	.75	.075	.105
10	4.40	.60	.38	.50	3.40	—	.24	4.15	.075	.105
11	3.47	.70	.38	.74	2.00	—	.26	3.22	.10	.105
12	1.36	.60	.38	.43	.50	—	.26	1.11	.09	.105
13	3.47	.70	.50	.74	2.00	—	.26	3.22	.34	(1)
14	2.10	.70	.38	.55	1.00	—	.26	1.85	.10	.105
15	2.10	.70	.38	.55	1.00	—	.26	1.85	.09	.105
16	1.36	.66	.38	.43	.50	—	.26	1.11	.09	.105

(1) 2-56 NC-28 x .12 Dimensions in inches

FEATURES

- Ultra-miniature
- Broadband
- SMA connectors
- High directivity
- Low VSWR
- Meets MIL environments
- 105°C operating temperature
- RF Shielded
- Stripline construction
- Available from stock

MODEL NO.	FREQUENCY RANGE (GHz)	COUPLING* (dB)	FREQ. SENS. (dB)	INSERTION LOSS (dB)		DIRECTIVITY (dB MIN.)		VSWR MAX.		POWER			OUTLINE DWG. NO.
				EXCL. CPLD PWR.	TRUE			PRIMARY LINE	SECONDARY LINE	AVERAGE INCIDENT (W)	AVERAGE REFLD. (W)	PEAK (kW)	
MDC2044-6	0.5-2	6 ± 1.0	± 0.6	0.35	2.00	23		1.20	1.20	50	2	3	1
MDC2044-10		10 ± 1.0	± 0.65	0.35	0.90	23		1.20	1.20	50	5	3	1
MDC2044-20		20 ± 1.0	± 0.7	0.35	0.40	23		1.20	1.20	50	50	3	2
MDC2055-6	1-4.0	6 ± 1.0	± 0.3	0.35	2.00	23		1.20	1.20	50	2	3	3
MDC2055-10		10 ± 1.0	± 0.3	0.35	0.90	23		1.20	1.20	50	5	3	3
MDC2055-20		20 ± 1.0	± 0.4	0.40	0.45	23		1.20	1.20	50	50	3	4
MDC2066-6	2-8	6 ± 1.0	± 0.3	0.50	2.20	20		1.25	1.25	50	2	3	5
MDC2066-10		10 ± 1.0	± 0.3	0.35	1.00	20		1.25	1.25	50	5	3	5
MDC2066-20		20 ± 1.0	± 0.4	0.40	0.45	20		1.25	1.25	50	50	3	6
MDC2077-6	4-12.4	6 ± 1.0	± 0.3	0.50	2.20	17		1.30	1.30	50	2	3	7
MDC2077-10		10 ± 1.0	± 0.3	0.50	1.20	17		1.30	1.30	50	5	3	7
MDC2077-20		20 ± 1.0	± 0.4	0.50	0.55	17		1.30	1.30	50	50	3	8
MDC2089-10	7-18	10 ± 1.25	± 0.75	0.60	1.10	15		1.35	1.40	50	5	3	9
MDC4245-10	0.6-4	10 ± 1.0	± 0.75	0.40	0.90	18		1.25	1.30	50	5	3	10
						1-12.4	12.4-18						
MDC4259-10	(1) 1-18	10 ± 1.0	± 0.5	0.90	1.50	15	12	1.40	1.50	25	5	3	11
MDC4259-16		16 ± 1.0	± 0.5	0.80	0.90	15	12	1.40	1.50	25	20	3	13
MDC4259-20		20 ± 1.0	± 0.5	0.85	0.90	15	12	1.40	1.50	25	25	3	13
						2-12.4	12.4-18						
MDC4269-6	(1) 2-18	6 ± 1.0	± 0.5	0.90	2.00	15	12	1.35	1.40	25	2	3	14
MDC4269-10		10 ± 1.0	± 0.5	0.60	1.00	15	12	1.35	1.50	25	5	3	14
MDC4269-16		16 ± 1.0	± 0.5	0.80	0.90	15	12	1.30	1.40	25	20	3	15
MDC4269-20		20 ± 1.0	± 0.5	0.80	0.90	15	12	1.30	1.40	25	25	3	15
						4-12.4	12.4-18						
MDC4279-6	(1) 4-18	6 ± 1.0	± 0.5	0.90	2.00	15	12	1.35	1.40	25	2	3	12
MDC4279-10		10 ± 1.0	± 0.5	0.80	1.00	15	12	1.35	1.40	25	5	3	12
MDC4279-20		20 ± 1.0	± 0.5	0.60	0.70	15	12	1.40	1.40	25	25	3	16

*Includes Frequency Sensitivity. (1)Coupling relative to output power.

MIDISCO
61 MALL DRIVE / COMMACK, NEW YORK 11725
1-800-637-4353 / IN N.Y. (516) 543-4774 / FAX (516) 543-4129

COAXIAL HYBRIDS (90°)

0.5 to 18 GHz (STANDARD & MULTI-OCTAVE)

MIDISCO Series MDC 7200 coaxial hybrids are used for non reflective PIN attenuators, switching networks, digital phase shifters, bi-phase modulators, antenna feed networks, double port reflective gain amplifiers, mixers, paralleled amplifiers, power dividers, as well as combiners. When you apply a signal to one of the ports of a 90° hybrid, that signal is equally divided at the two opposite ports with a relative phase shift of 90°. Upon terminating the opposite ports, high isolation is obtained between the two adjacent ports. These characteristics display the versatility of the 90° Hybrid. Note the various applications shown in the diagrams below. All units have high isolation, low VSWR and meet MIL environments. Delivery is from stock.

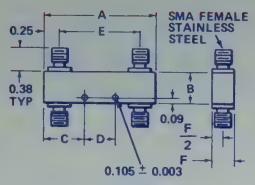


FIGURE 1

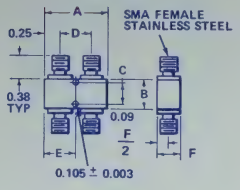


FIGURE 2

FEATURES

- **Miniature Size**
- **High isolation**
- **Low VSWR**
- **0.5-18GHz**
- **Octave and Multi-Octave Bandwidth**
- **Operating temp. 105°C (125°C storage)**
- **Qualified to MIL environments**
- **RF shielded**
- **Stripline construction**
- **Delivery from stock**

TERMINOLOGY

- **Coupling Loss** - True loss measured from input port to 0° relative phase output port (Note: dc open circuit between input port and coupled output port).
- **Thru Loss** - True loss measured from input port to −90° relative phase output port (Note: dc short circuit between input port and thru output port).
- **Isolation** - Attenuation measured between two output ports when remaining ports are terminated in 50 ohms.

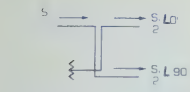
OCTAVE MODELS

Model No.	Freq. Range (GHz)	Coupling* or Thru Loss (dB)	Freq. Sensitivity (dB)	VSWR (max.)	Isolation (dB min.)	Input Power Average (Watts)	Input Power Peak (KW)	Fig.	A	B	C	D	E	F
MDC 7223	0.5-1	3.1 ± 0.6	±0.5	1.10	28	50	3	1	3.060	0.500	0.840	1.370	2.560	0.380
MDC 7224	1-2	3.1 ± 0.6	±0.5	1.10	28	50	3	1	1.780	0.500	0.640	0.500	1.280	0.380
MDC 7225	2-4	3.1 ± 0.6	±0.5	1.20	22	50	3	2	1.150	0.500	0.314	0.580	0.660	0.380
MDC 7266	2.6-5.2	3.1 ± 0.6	±0.5	1.25	20	50	3	2	1.000	0.500	0.314	0.500	0.500	0.380
MDC 7226	4-8	3.2 ± 0.7	±0.5	1.25	18	50	3	2	1.000	0.500	0.314	0.500	0.500	0.380
MDC 7227	6-12.4	3.2 ± 0.7	±0.5	1.30	18	50	3	2	1.000	0.500	0.314	0.500	0.500	0.380
MDC 7288	7.5-16	3.4 ± 0.9	±0.6	1.40	15	40	2	2	1.000	0.580	0.392	0.500	0.500	0.380
MDC 7228	12-18	3.4 ± 1.0	±0.7	1.40	15	40	1	2	1.000	0.580	0.392	0.500	0.500	0.380
MULTI-OCTAVE MODELS														
MDC 7267	2-8	3.3 ± 0.80	±0.40	1.30	17	30	3	1	2.600	0.750	0.670	1.260	2.030	0.440
MDC 7277	4-12.4	3.3 ± 0.80	±0.40	1.35	17	20	2	1	1.720	0.600	0.610	0.500	1.220	0.380

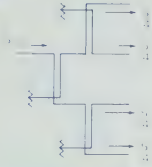
*Includes frequency sensitivity.

Dimensions are in inches.

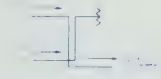
TYPICAL CIRCUIT DIAGRAM



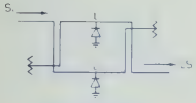
2 WAY POWER DIVIDER



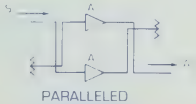
4 WAY POWER DIVIDER



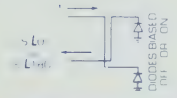
SIGNAL COMBINER
(3dB LOSS)



NON REFLECTIVE
PIN ATTENUATOR

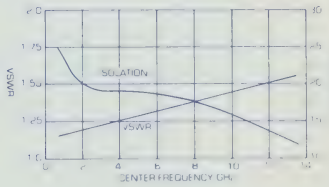


PARALLELED
AMPLIFIERS



BI PHASE MODULATOR

Octave band VSWR and isolation specifications as a function of center frequency.



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61 MALL DRIVE / COMMACK, NEW YORK 11725
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ISOLATORS/CIRCULATORS - SINGLE JUNCTION

OCTAVE/BROADBAND – HIGH PERFORMANCE NARROW BAND

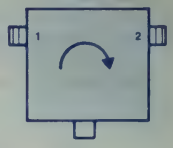
MIDISCO standard isolators and circulators are available in selected frequency ranges from 0.50 to 40.0 GHz. Standard are SMA female connectors but other types are available. Each model is nickel plate finish with chem film per MIL-C-5541B class 3. Test data may be ordered. Dual Junction devices are available. Standard units are in stock.

FEATURES

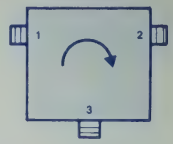
- Small size
- SMA connectors
- Optional removable connectors for assembly integration
- Nickel plated
- Dual Junction devices available
- Delivery from stock

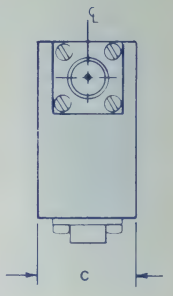
Frequency[1] GHz	Model No. Isolator	Model No. Circulator	Isolation dB Typ.	Isolation dB Min.	Insertion Loss dB Typ.	Insertion Loss dB Max.	VSWR Typ.	VSWR Max.	Size Inches (CM.) Outline No.	Approx. Weight Oz. (gm.)	Power Watts[2] Av.	Power Watts[2] Pk.	Operating Temperature[3] Range °C
2.0-4.0	M3I 2040	M3C 2040	22	20	.35	.4	1.18	1.25	1	3.5 (100)	2	20	0 to +50
2.0-6.0	M3I 2060	M3C 2060	16	14	.6	.8	1.40	1.50	1	3.5 (100)	2	20	–40 to +65
2.6-5.2	M3I 2652	M3C 2652	22	20	.35	.4	1.18	1.25	1	3.5 (100)	2	20	0 to +50
3.0-6.0	M3I 3060	M3C 3060	22	20	.35	.4	1.18	1.25	2	2.0 (60)	2	20	0 to +50
3.5-7.0	M3I 3570	M3C 3570	22	20	.35	.4	1.18	1.25	3	1.2 (35)	2	20	0 to +50
3.7-8.3	M3I 3783	M3C 3783	18	17	.5	.6	1.30	1.35	3	1.2 (35)	2	20	0 to +50
4.0-8.0	M3I 4080	M3C 4080	22	20	.35	.4	1.18	1.25	3	1.2 (35)	2	20	–10 to +60
6.0-12.4	M3I 6012	M3C 6012	19	17	.5	.6	1.30	1.35	4	1.0 (30)	2	20	–10 to +60
7.0-11.0	M3I 7011	M3C 7011	22	20	.35	.4	1.18	1.25	4	1.0 (30)	5	500	–30 to +85
7.0-12.4	M3I 7012	M3C 7012	21	20	.35	.4	1.22	1.25	4	1.0 (30)	5	500	–30 to +85
7.0-18.0	M3I 7018	M3C 7018	16	15	.9	1.0	1.45	1.50	5	.9 (25)	2	30	–10 to +85
8.0-12.4	M3I 8012	M3C 8012	22	20	.35	.4	1.18	1.25	4	1.0 (30)	5	500	–30 to +85
8.0-16.0	M3I 8016	M3C 8016	19	17	.5	.6	1.30	1.35	5	.9 (25)	2	30	–20 to +65
8.0-18.0	M3I 8018	M3C 8018	17	16	.7	.8	1.40	1.45	5	.9 (25)	2	30	–20 to +65
10.0-20.0	M3I 1020	M3C 1020	17	16	.6	.7	1.35	1.40	5	.9 (25)	2	30	–20 to +65
12.0-18.0	M3I 1118	M3C 1118	22	20	.45	.5	1.18	1.25	5	.9 (25)	10	300	–20 to +65
18.0-26.5	M3I 1826	M3C 1826	20	18	.7	.8	1.35	1.40	5	.9 (25)	2	30	–20 to +65
26.5-40.0*	M3I 2640	M3C 2640	16	14	.8	1.0	1.40	1.50	5	.9 (25)	2	30	0 to +50
0.5-0.55	M3I 0555	M3C 0555	23	20	3	.4	1.15	1.25	1	4.8 (135)	2	750	–20 to +65
0.525-0.6	M3I 0560	M3C 0560	23	20	3	.4	1.15	1.25	1	4.8 (135)	2	750	–20 to +65
0.6-0.7	M3I 0670	M3C 0670	23	20	3	.4	1.15	1.25	1	4.5 (129)	2	750	–20 to +65
0.7-0.8	M3I 0780	M3C 0780	23	20	3	.4	1.15	1.25	1	4.5 (129)	2	750	–20 to +65
0.8-0.9	M3I 0890	M3C 0890	23	20	3	4	1.15	1.25	2	2.8 (80)	2	750	–20 to +65
95-1.225	M3I 9525	M3C 9525	22	20	35	4	1.18	1.25	2	2.8 (80)	2	500	–20 to +65
1.2-1.4	M3I 0112	M3C 0112	23	20	3	.4	1.15	1.25	2	2.7 (76)	2	500	–20 to +65
1.4-1.6	M3I 0116	M3C 0116	23	20	3	.4	1.15	1.25	3	2.0 (56)	2	500	–20 to +65
1.6-1.8	M3I 0118	M3C 0118	23	20	3	.4	1.15	1.25	3	2.0 (56)	2	350	–20 to +65
1.7-2.0	M3I 0120	M3C 0120	23	20	3	4	1.15	1.25	3	2.0 (56)	2	350	–20 to +65
2.0-2.3	M3I 0223	M3C 0223	23	20	3	4	1.15	1.25	3	2.0 (56)	2	350	–20 to +65
3.7-4.2	M3I 3742	M3C 3742	26	23	1	15	1.10	1.15	4	1.4 (39)	2	20	–30 to +60
4.4-5.0	M3I 4450	M3C 4450	26	23	1	15	1.10	1.15	4	1.4 (39)	2	20	–30 to +60
5.4-5.9	M3I 5459	M3C 5459	26	23	1	15	1.10	1.15	5	1.0 (29)	2	20	–30 to +60
5.9-6.4	M3I 5964	M3C 5964	26	23	1	15	1.10	1.15	5	1.0 (29)	2	20	–30 to +60
7.5-10.0	M3I 7510	M3C 7510	23	20	3	5	1.15	1.25	6	.74 (21)	2	50	–30 to +60
7.7-8.4	M3I 7784	M3C 7784	26	23	15	2	1.10	1.20	6	74 (21)	2	50	–30 to +60
8.5-9.6	M3I 8596	M3C 8596	26	23	15	2	1.10	1.20	6	74 (21)	2	50	–30 to +60
9.2-10.5	M3I 9211	M3C 9211	26	23	15	2	1.10	1.20	6	74 (21)	2	50	–30 to +60
10.7-11.7	M3I 1112	M3C 1112	26	23	15	2	1.10	1.20	6	.74 (21)	2	50	–30 to +60
11.7-12.7	M3I 1213	M3C 1213	26	23	15	2	1.10	1.20	6	74 (21)	2	50	–30 to +60

ISOLATOR



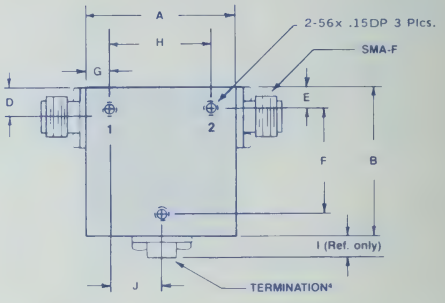
CIRCULATOR





Outline No.	A	B	C	D	E	F	G	H	I	J
1	1.58 (4.01)	1.62 (4.11)	.75 (1.90)	.26 (.66)	.26 (.66)	1.265 (3.213)	.10 (.25)	1.380 (3.505)	.20 (.50)	.690 (1.75)
2	1.25 (3.17)	1.25 (3.17)	.75 (1.90)	.26 (.66)	.26 (.66)	.900 (2.286)	.10 (.25)	1.050 (2.667)	.20 (.50)	.525 (1.33)
3	1.00 (2.54)	1.00 (2.54)	.55 (1.40)	.26 (.66)	.26 (.66)	.675 (1.715)	.10 (.25)	.800 (2.032)	.20 (.50)	.400 (1.02)
4	.86 (2.18)	.98 (2.49)	.50 (1.27)	.25 (.63)	.25 (.63)	.625 (1.587)	.10 (.25)	.660 (1.676)	.20 (.50)	.330 (.84)
5	.50 (1.27)	.70 (1.78)	.50 (1.27)	.25 (.63)	.18 (.46)	.455 (1.156)	.08 (.20)	.340 (.864)	.20 (.50)	.170 (.43)
6	.62 (1.57)	.78 (1.98)	.50 (1.27)	.25 (.63)	.25 (.63)	.425 (1.079)	.10 (.25)	.420 (1.067)	.20 (.50)	.210 (.53)
7	1.00 (2.54)	1.00 (2.54)	.50 (1.27)	.25 (.63)	.25 (.63)	.675 (1.715)	.10 (.25)	.800 (2.032)	.20 (.50)	.400 (1.02)

*M3I2640 and M3C2640 are supplied with "K" female connectors.



1. Other frequencies available on request.
2. Consult factory for power handling capability of circulator.
3. Storage temperature range is –55°C to 100°C.
4. Connecter and termination locations are interchangeable.

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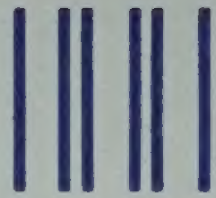

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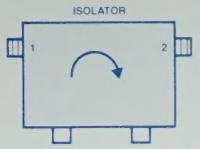
OCTAVE/BROADBAND – HIGH PERFORMANCE NARROW BAND

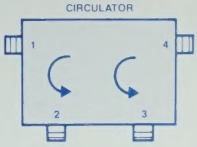
MIDISCO standard isolators and circulators are available in selected frequency ranges from 0.50 to 40.0 GHz. Standard are SMA Female connectors but other types are available. Each model is nickel plate finish with chem film per MIL-C-5541B class 3. Test data may be ordered. Single Junction devices are available. Standard units are in stock.

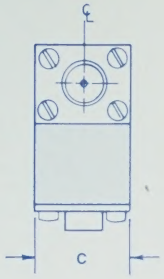
FEATURES

- Small size
- SMA connectors
- Optional removable connectors for assembly integration
- Nickel plated
- Single Junction devices available
- Delivery from stock

Frequency[1] GHz	Model No. Isolator	Model No. Circulator	Isolation dB Min. Per. Jct.	Insertion Loss dB Max. Per. Jct.	VSWR Max.	Size Inches (CM.) Outline No.	Approx. Weight Oz. (gm.)	Power Watts[2] Av.	Power Watts[2] Pk.	Operating Temperature[3] Range °C
2.0-4.0	M4I 2040	M4C 2040	20	.4	1.25	1	6.9 (195)	2	20	0 to +50
2.0-6.0	M4I 2060	M4C 2060	14	.8	1.50	1	6.9 (195)	2	20	−40 to +65
2.6-5.2	M4I 2652	M4C 2652	20	.4	1.25	1	6.9 (195)	2	20	0 to +50
3.0-6.0	M4I 3060	M4C 3060	20	.4	1.25	2	4.0 (115)	2	20	0 to +50
3.5-7.0	M4I 3570	M4C 3570	20	.4	1.25	3	2.3 (65)	2	20	0 to +50
3.7-8.3	M4I 3783	M4C 3783	17	.6	1.35	3	2.3 (65)	2	20	0 to +50
4.0-8.0	M4I 4080	M4C 4080	20	.4	1.25	3	2.3 (65)	2	20	−10 to +60
6.0-12.4	M4I 6012	M4C 6012	17	.6	1.35	7	1.9 (55)	2	20	−10 to +60
7.0-11.0	M4I 7011	M4C 7011	20	.4	1.25	7	1.9 (55)	5	500	−30 to +85
7.0-12.4	M4I 7012	M4C 7012	20	.4	1.25	7	1.9 (55)	5	500	−30 to +85
7.0-18.0	M4I 7018	M4C 7018	15	1.0	1.50	5	1.6 (45)	2	30	−10 to +85
8.0-12.4	M4I 8012	M4C 8012	20	.4	1.25	7	1.9 (55)	5	500	−30 to +85
8.0-16.0	M4I 8016	M4C 8016	17	.6	1.35	6	1.6 (45)	2	30	−20 to +65
8.0-18.0	M4I 8018	M4C 8018	16	.8	1.45	5	1.6 (45)	2	30	−10 to +85
10.0-20.0	M4I 1020	M4C 1020	16	.7	1.40	6	1.6 (45)	2	30	−20 to +65
12.0-18.0	M4I 1118	M4C 1118	20	.5	1.25	6	1.6 (45)	10	300	−20 to +65
18.0-26.5	M4I 1826	M4C 1826	18	.8	1.40	6	1.6 (45)	2	30	−20 to +65
26.5-40.0*	M4I 2640	M4C 2640	14	1.0	1.50	6	1.6 (45)	2	30	0 to +50
0.5- 0.55	M4I 0555	M4C 0555	20	.4	1.25	1	9.3 (265)	2	750	−20 to +65
0.525-0 6	M4I 0560	M4C 0560	20	.4	1.25	1	9.3 (265)	2	750	−20 to +65
0.6-0 7	M4I 0670	M4C 0670	20	.4	1.25	1	8.9 (253)	2	750	−20 to +65
0.7-0.8	M4I 0780	M4C 0780	20	.4	1.25	1	8.9 (253)	2	750	−20 to +65
0.8-0.9	M4I 0890	M4C 0890	20	.4	1.25	2	5.5 (155)	2	750	−20 to +65
0.95-1.225	M4I 9525	M4C 9525	20	.4	1.25	2	5.5 (155)	2	500	−20 to +65
1.2-1.4	M4I 0112	M4C 0112	20	.4	1.25	2	5.2 (147)	2	500	−20 to +65
1.4-1.6	M4I 0116	M4C 0116	20	.4	1.25	3	3.8 (107)	2	500	−20 to +65
1.6-1.8	M4I 0118	M4C 0118	20	.4	1.25	3	3.8 (107)	2	350	−20 to +65
1.7-2.0	M4I 0120	M4C 0120	20	.4	1.25	3	3.8 (107)	2	350	−20 to +65
2.0-2.3	M4I 0223	M4C 0223	20	.4	1.25	3	3.8 (107)	2	350	−20 to +65
3.7-4.2	M4I 3742	M4C 3742	23	.15	1.15	4	2.6 (73)	2	20	−30 to +65
4.4-5.0	M4I 4450	M4C 4450	23	.15	1.15	4	2.6 (73)	2	20	−30 to +65
5.4-5.9	M4I 5459	M4C 5459	23	.15	1.15	5	1.9 (53)	2	20	−30 to +65
5.9-6.4	M4I 5964	M4C 5964	23	.15	1.15	5	1.9 (53)	2	20	−30 to +65
7.5-10.0	M4I 7510	M4C 7510	20	.5	1.25	6	1.3 (37)	2	50	−30 to +65
7.7-8.4	M4I 7784	M4C 7784	23	.2	1.20	6	1.3 (37)	2	50	−30 to +65
8.5-9.6	M4I 8596	M4C 8596	23	.2	1.20	6	1.3 (37)	2	50	−30 to +65
9.2-10.5	M4I 9211	M4C 9211	23	.2	1.20	6	1.3 (37)	2	50	−30 to +65
10.7-11.7	M4I 1112	M4C 1112	23	.2	1.20	6	1.3 (37)	2	50	−30 to +65
11.7-12.7	M4I 1213	M4C 1213	23	.2	1.20	6	1.3 (37)	2	50	−30 to +65

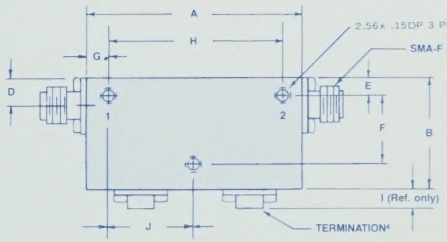






Outline No.	A	B	C	D	E	F	G	H	I	J
1	3.16 (8.03)	1.62 (4.11)	.75 (1.90)	.26 (.66)	.26 (.66)	1.265 (3.213)	.10 (.25)	2.960 (7.518)	.20 (.50)	1.48 (3.76)
2	2.50 (6.35)	1.25 (3.17)	.75 (1.90)	.26 (.66)	.26 (.66)	.900 (2.286)	.10 (.25)	2.300 (5.842)	.20 (.50)	1.15 (2.92)
3	2.00 (5.08)	1.00 (2.54)	.55 (1.40)	.26 (.66)	.26 (.66)	.675 (1.715)	.10 (.25)	1.800 (4.572)	.20 (.50)	.90 (2.29)
4	2.00 (5.08)	1.00 (2.54)	.50 (1.27)	.25 (.63)	.25 (.63)	.675 (1.715)	.10 (.25)	1.800 (4.572)	.20 (.50)	.90 (2.29)
5	1.24 (3.15)	.78 (1.98)	.50 (1.27)	.25 (.63)	.25 (.63)	.425 (1.079)	.10 (.25)	1.040 (2.642)	.20 (.50)	.52 (1.32)
6	1.00 (2.54)	.70 (1.78)	.50 (1.27)	.25 (.63)	.18 (.46)	.455 (1.156)	.08 (.20)	.840 (2.134)	.20 (.50)	.42 (1.07)
7	1.72 (4.37)	.98 (2.49)	.50 (1.27)	.25 (.63)	.25 (.63)	.625 (1.587)	.10 (.25)	1.520 (3.861)	.20 (.50)	.76 (1.93)

*M4I2640 and M4C2640 are supplied with "K" female connectors.



1. Other frequencies available on request.
2. Consult factory for power handling capability of circulator.
3. Storage temperature range is −55°C to 100°C.
4. Connecter and termination locations are interchangeable.

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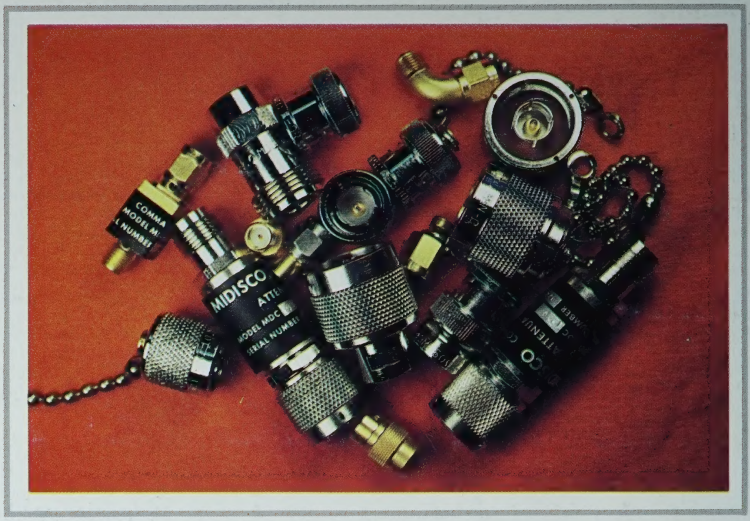

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